ORPHEE
19, chemin du champ-des-filles
CH-1228 Geneva / Plan-les-Ouates
SWITZERLAND

Tel : +41 (0) 22 706 1840
Fax : +41 (0) 22 794 4391
http://www.orphee-medical.com

MYTHIC 22

SERVICE MANUAL

REF : M22-SM-000 Rev 01

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REVISIONS

Revision Nb	Date	Author	Software	Comments
01	14/02/06	HC	> V 1.0	Creation

CONTACT ADDRESS

MANUFACTURER

C2 Diagnostics
2214, Bd de la Lironde
34397 Montpellier Cedex 5
FRANCE

AUTHORIZED REPRESENTATIVE

ORPHEE SA
19, chemin du champ-des-filles
CH-1228 Geneva / Plan-les-Ouates
WORLDWIDE SWITZERLAND

Tel : +41 (0) 22 706 1840
Fax : +41 (0) 22 794 4391
http://www.orphee-medical.com

LOCAL REPRESENTATIVE

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IMPORTANT SAFETY INSTRUCTIONS

	RISK OF DANGER ! Indicates a procedure to be strictly respected in order to avoid any risks for the operator (user) or damages on the instrument or on the quality of results.

	Indicates that wearing gloves is mandatory before performing the described operation due to risk of contact with materials that may be infectious.

NOTA : Indicates important additional information.

	BEFORE TO INSTALL OR TO MAINTAIN A MYTHIC 22 YOU HAVE TO READ AND TO REFER TO THE USER'S MANUAL. **OPERATORS MUST HAVE RECEIVED ADEQUATE TRAINING.**

	BE CAREFUL WITH THE EDGE OF THE METAL SHEETS AFTER HAVING DISMANTLED THE COVERS.

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This equipment needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information listed below

Guidance and manufacturer's declaration – Electromagnetic immunity			
The MYTHIC 22 is intended for use in the electromagnetic environment specified below. The customer or the user of the MYTHIC 22 should assure that it is used in such environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment - guidance**
			Portable and mobile RF communications equipment should be used no closer to any part of the MYTHIC 22, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance**
Conducted RF IEC 61000-4-6	3 Vrms 150Khz to 80Mhz	3 Vrms	$d = 1,2\sqrt{P}$
Radiated RF IEC 61000-4-3	3 Vrms 80Mhz to 2,5Ghz	3 Vrms	$d = 1,2\sqrt{P}$ 80MHz to 800MHz $d = 2,3\sqrt{P}$ 800MHz to 2,5GHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strenghts from fixed RF transmitters, as determined by an electromagnetic site survey,[a] should be less than the compliance level in each frequency range.[b] Interference may occur in the vicinity of equipment marked with the following symbol:
NOTE 1 At 80Mhz and 800MHz, the higher frequency range apllies. NOTE 2 Theses guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
[a] Field strenghts from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM an FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should considered. If the measured field strenght in the location in which the MYTHIC 22 is used exceeds the applicable RF compliance level above, the MYTHIC 18 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the MYTHIC 22 [b] Over the frequency range 150KHz to 80MHz, field strenghts should be less than 3V/m.			

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DECLARATION OF CONFORMITY
DECLARATION DE CONFORMITE

WE THE MANUFACTURER
NOUS LE FABRICANT

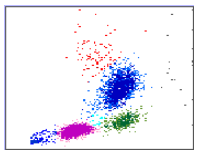
NAME / *NOM*: **C2 DIAGNOSTICS**

ADDRESS / *ADRESSE*: Parc Agropolis II, Bâtiment 14
2214, bd de la Lironde
34397 MONTPELLIER CEDEX 5
FRANCE

DECLARE THAT THE PRODUCT
DECLARONS QUE LE PRODUIT

NAME OF THE MODEL
NOM DU MODEL

MYTHIC 22



CONFORMS TO THE FOLLOWING DIRECTIVE & STANDARDS
EST CONFORME A LA DIRECTIVE ET AUX NORMES SUIVANTES

DIRECTIVE	98/79/CE (IVD Medical devices)
STANDARDS	IEC 60601-1-2 (2001) EN 61000-3-2 EN 61000-3-3 EN 61000-4-2 (95) A1 (98) A2 (01) EN 61000-4-3 (02) EN 61000-4-4 (95) A1(01) EN 61000-4-5 A1 (01) EN 61000-4-6 (96) A1 (01) EN 61000-4-11 (94) A1 (01) EN 55011 Class B EN 55022 Class B IEC 61010-1 (2001) IEC 61010-2-081 (2001) IEC 61010-2-101 (2002) JIS T0601-1-2 (2002) CFR 47 Part 15 Class A

Henri CHAMPSEIX
CEO
Président Directeur Général

FormDeclarM22 (Version 01)

DECEMBRE 2005

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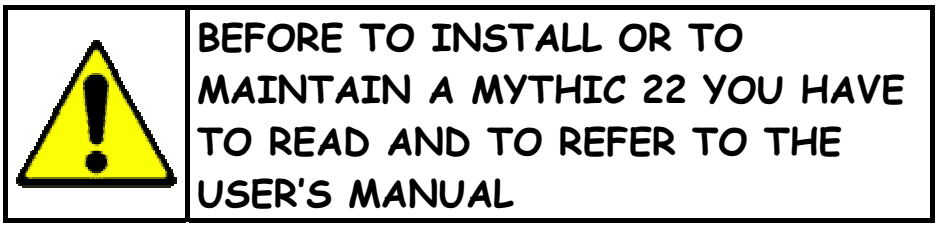
1. INTRODUCTION



The following chapters describe the different technical parts of the MYTHIC 22

- Fluidic
- Electric & electronic
- Technical specification
- Output format
- Spare parts list and blowup view
- Maintenance procedure

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2. FLUIDICS

2.1 GENERALITIES

MYTHIC 22 is a fully automated analyzer performing hematological analysis on whole blood.
The human blood venous sample must be collected in an EDTA **K3** (Ethylene Diamine Tetracetic Acid, tri potassic) tube in sufficient quantity. The LMG results are available for **six hours** after the blood draw. The use of EDTA K2 leads to a poor quality level of the LMG results.
It must be correctly homogenized before analysis. It is recommended to use a rotary agitator turning between 20 to 30 turns/mn during **10 minutes**.

A volume of insufficient blood for the quantity of anticoagulant or a bad mixing may involve an erroneous result.

Two dilution rate are performed :
~1/170 for WBC/HB
~1/10000 for RBC/PLT

2.2 FLUIDICS SEQUENCES DESCRIPTION :

SAMPLING SEQUENCE :
1- Syringes down : (no valve)
~Less than 16,7 µl of blood sample are draw inside the sampling needle
Diluent prime
Vacuum prime
2- Needle up and syringe up (valve 3+4)
Needle outside cleaning with diluent (~0,7ml) and waste vacuum
3-Rocker move above the WBC bath
and the syringes up to drain the waste (valve 7)
4- Needle down to the rinsing position
5- Syringe down
WBC bath drain (valve 1)
Tubing transfer drain (valve 11+14)
6- Syringe up
Second outside needle cleaning (~1,5ml) (valve 4)
Waste syringe drain (valve 7)
7- Syringe down
WBC bath drain (valve 1)
8- Syringe up
Waste syringe drain (valve 7)

WBC DILUTION :
9- Needle down to the dilution position
and the syringes down to prime the diluent (valve 8)
10- Syringe up for the WBC dilution (~2 ml)
Diluent outside of the needle (valve 4)
Diluent inside the needle (valve 4+5)
Bubble to mix the dilution (valve 1)

RBC DILUTION AND LYSING :
11- Syringe down (no valve)

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Drawing sample of the first dilution (~25µl)
Diluent prime
Vacuum prime
12- Needle up and syringe up
Rocker move above the RBC bath
Needle outside cleaning with diluent (~0,5ml) and waste vacuum (valve 3+4)
13- Needle down to the rinsing position
14 Syringe up
Second outside needle cleaning (~0,9ml) (valve 4+8)
Lysis in the WBC bath (0,73ml) (valve 9)
Bubble to mix the dilution (valve 1)
15 Syringe down
RBC bath drain (valve 2)
16- Needle down to the dilution position
17- Syringe up for the RBC dilution (~2ml)
Waste syringe drain (valve 7)
Diluent outside of the needle (valve 4)
Diluent inside the needle (valve 5)
Bubble to mix the dilution and diluent to rinse the counting head (valve 6+10+2)

MEASUREMENTS :
18- Syringe down to process the vacuum counting (valve 8+10)
19- First measurement sequences, CBC 2 second (valve 10)
20- Syringe up
Diluent back pressure (valve 4+6)
21- Syringe down to perform the vacuum counting (valve 8+10)
22- Second measurement sequences
CBC measurements, 8 second (valve 10)
Syringe up for DIF measurements, 12 seconds (valve 4+9+12+13+16+17)

DRAIN AND RINSE BATH :
22- Cleaning
Cleaning the apertures (valve 11)
Back pressure in the injector (valve 4+13+14)
23- Syringe down
WBC bath drain (valve 1)
Tubing transfer drain (valve 11+14)
RBC bath drain (valve 2)
24- Syringe up
RBC bath rinse diluent (~2ml, valve 4)
Waste syringe drain (valve 7)
24- Needle up and syringes up for back flush (valve 4+6)
25- Rocker move above the WBC bath
26- Syringe up
WBC bath rinse diluent (~2,5ml, valve 4)
Waste syringe drain (valve 7)

NEEDLE BACK AND WASTE DRAIN :
27- Syringe down
Transfer tubing rinsing with ~0,5ml (valve 11+14)
Dry the outside of the needle (valve 3)

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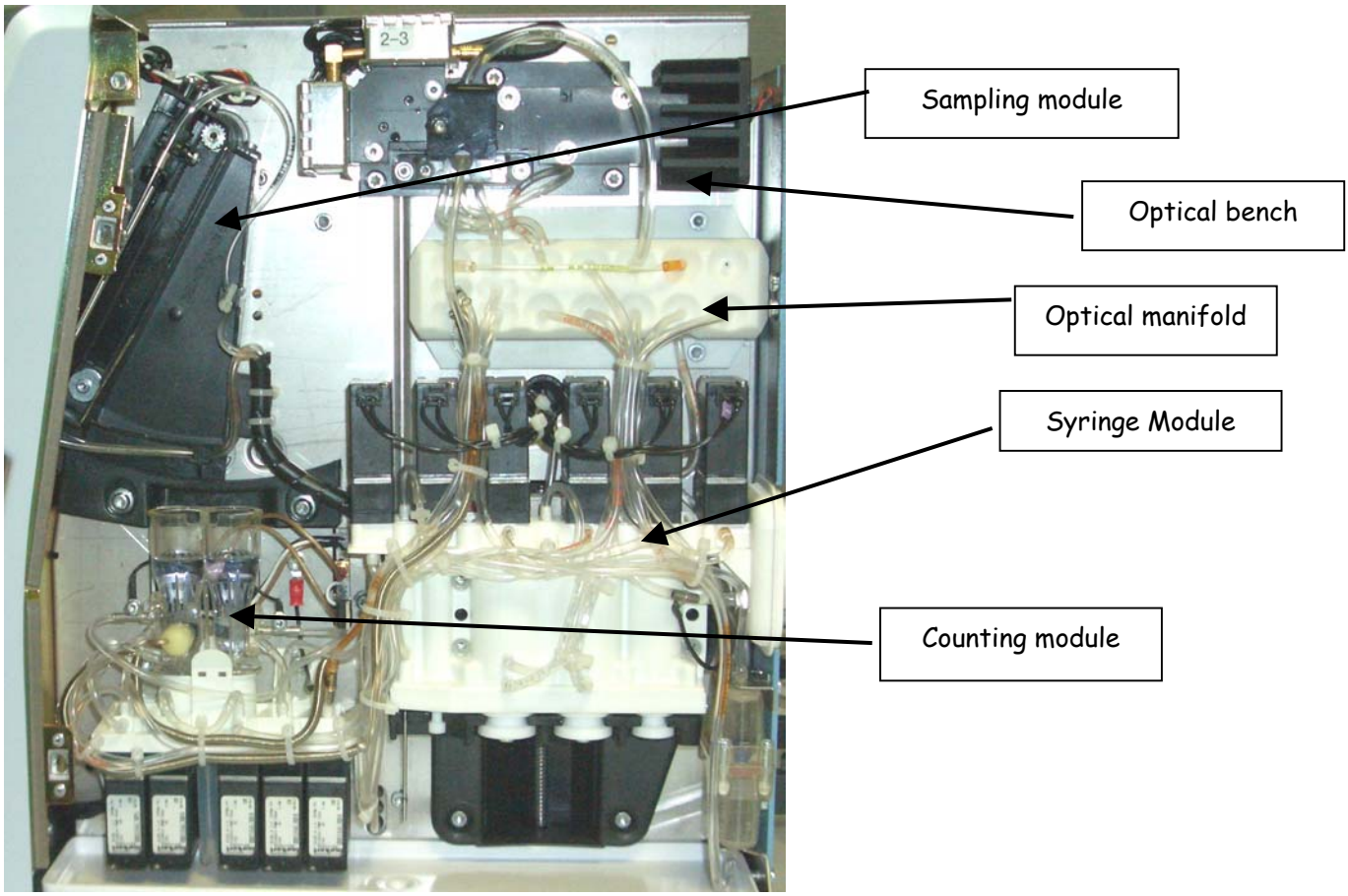
28- Rocker move in the sampling position
26- Syringe up
Waste syringe drain (valve 7)
30- Needle down in sampling position

The MYTHIC 18 is ready to perform a new analyze.

2.3 FLUIDICS VIEW

All the fluidics part is on the right side of the instrument and consists of only three modules :

- Sampling module :
  - Rocker (patent pending) : Manages the rise and descent of the needle.
- Syringe module (patent pending) consists of one block :
  - Reagent syringes (Diluent, lysis), sampling and air syringes.
  - Liquid valve manifold assembly and tubing.
- Counting chambers :
  - WBC and RBC counting chambers and hemoglobin measurement.
  - Liquid valve manifold assembly and tubing.



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2.4 FLUIDICS PARTS DESCRIPTION

The hydraulic part of the **MYTHIC 22** is very simple and made of only 5 modules :

- Sampling module.
- Counting bath module.
- Syringes module.
- Optical bench
- Optical manifold

The modules are connected together by semi rigid tubing.

2.4.1 Sampling module

This module (patent pending) enables to draw the sample and to perform the WBC and RBC/PLT dilutions.
It is assembled with a rotating rocker moving around a support which maintains the system to move up and down the sampling needle.
A very reliable system of rack-gear moves the rocker.
The cleaning system of the sampling needle can be removed without tool (see section **9.3.2** in the user manual).
The o-ring of the needle included in the cleaning system can also be removed without tool (see section **9.3.2** in the user manual).
The maintenance of these parts is very easy to perform.

2.4.2 Counting bath module

This module allows to count the WBC and RBC/PLA and to measure the HGB.
It is made with a manifold maintaining the reagent commutation valves and the counting bath block with their measurement block including the apertures.
The counting bath block assembly and these apertures can be removed without tool (see section **9.3.3/4/5** in the user manual).

2.4.3 Syringes module

This module (patent pending) enables :

to draw the sample
to distribute the reagents
to drain the baths
to do the vacuum necessary for counting
and to push the waste to the waste container.

It is made with a manifold maintaining the fluid commutation valves and with the syringes bloc including five syringes :

The sampling syringe
The lysis syringe
The two waste and vacuum/pressure syringes
And the diluent syringe.

Only one motor drives the five syringes.
The diluent input and the waste output are also included in this manifold.

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2.4.4 Optical bench

This manifold allows to drive the different reagent toward the counting bath module or toward the optical bench. It maintain seven commutation valves.

2.4.5 Optical manifold

This very important part (two pending patents) allows to measure the leucocytes sub population.
It is made of three parts :
- an illumination module : which contain the semi conductor light source, a beam adjustment glass smear, and lens.
- a flow cell : made in injected plastic in which flow away the sample and the passive sheath.
- and the detection module : which contain lens, a beam separation glass smear, photodiodes and the amplifier boars for the two measurement axes.

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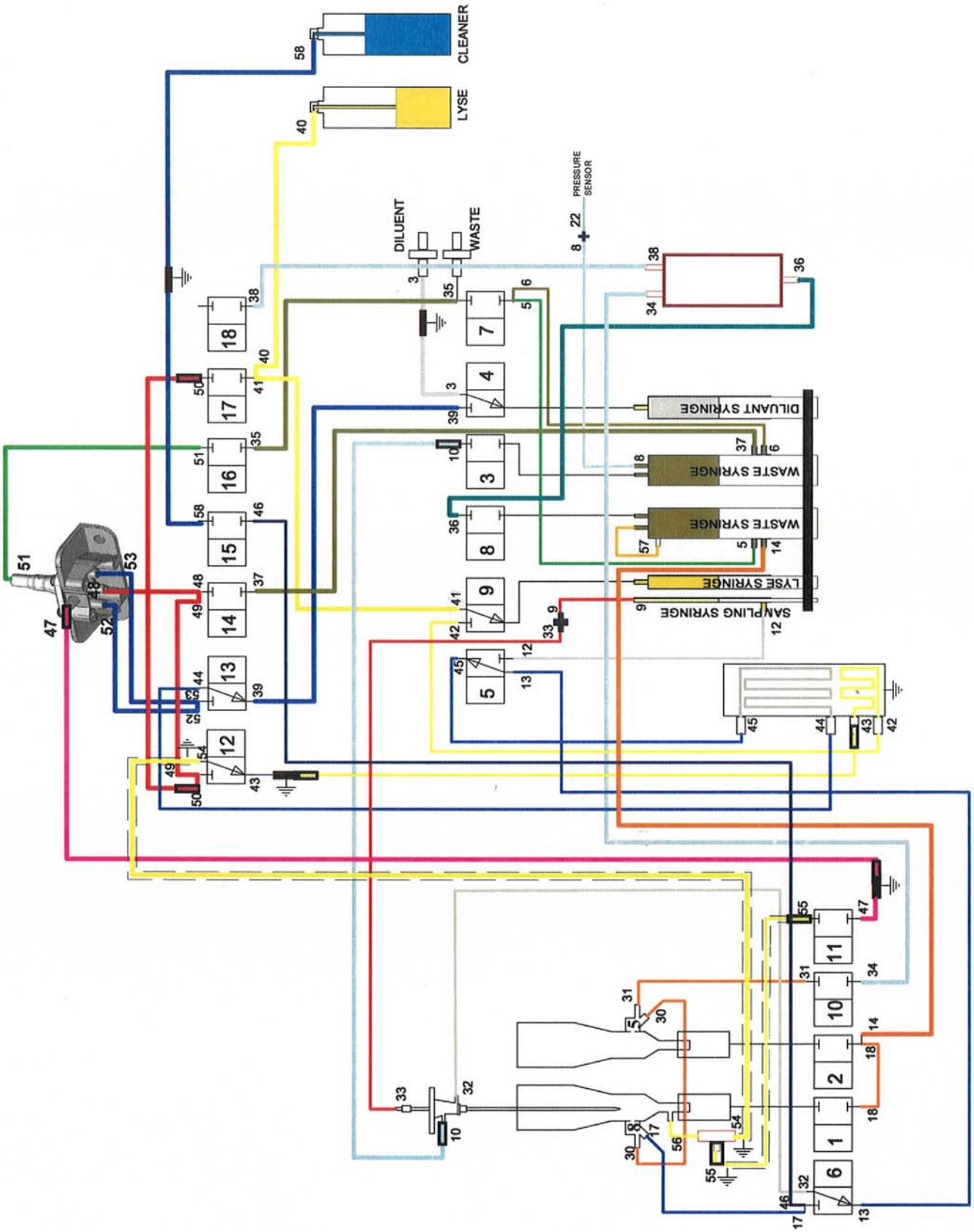
2.5 FLUIDICS DIAGRAM

2.5.1 General Diagram



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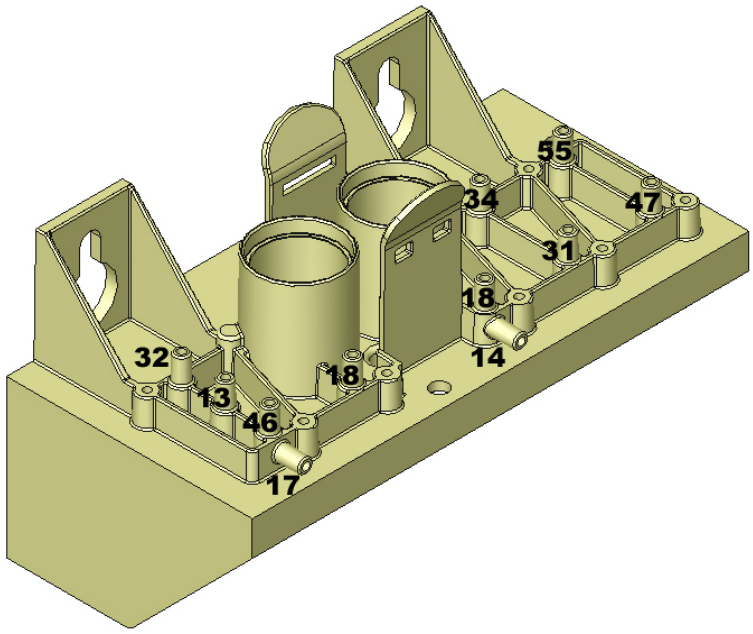
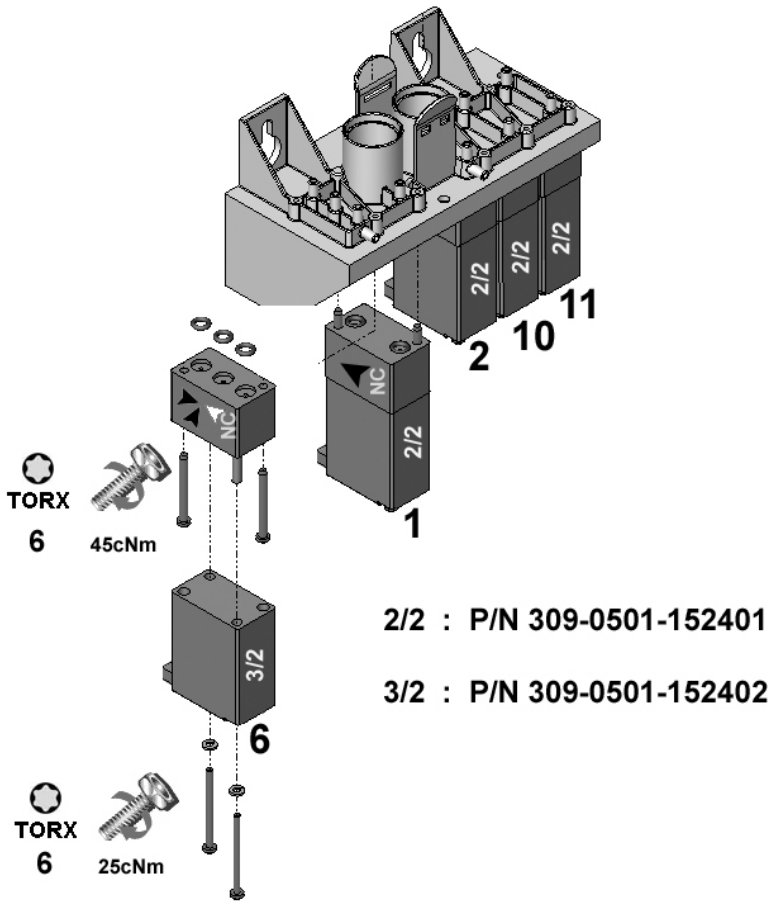
2.5.2 Manifold tubing and valves position

Each figure corresponds to a tubing or a valve number (see the Fluidic diagram section 2.5.1)



Counting manifold tubing position



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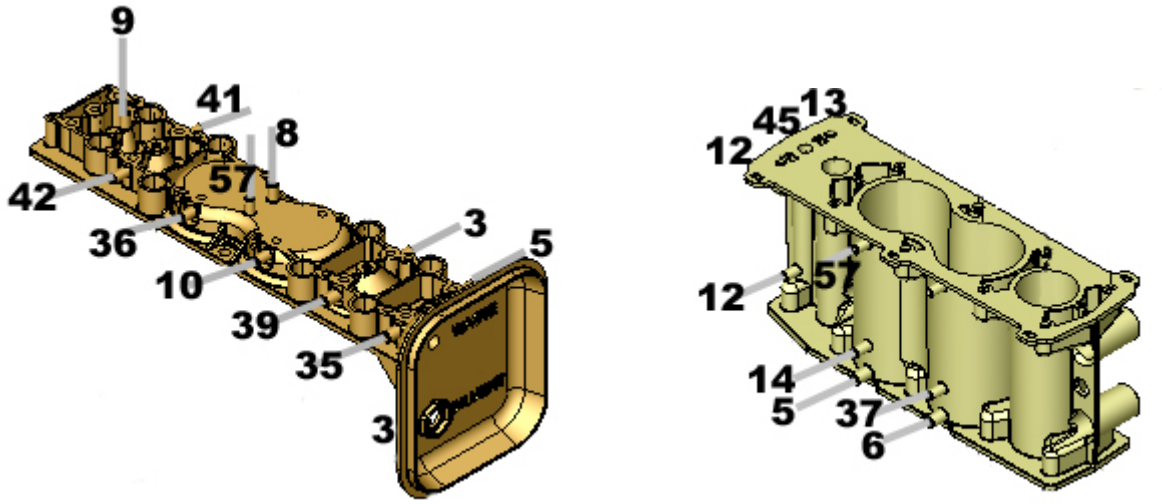
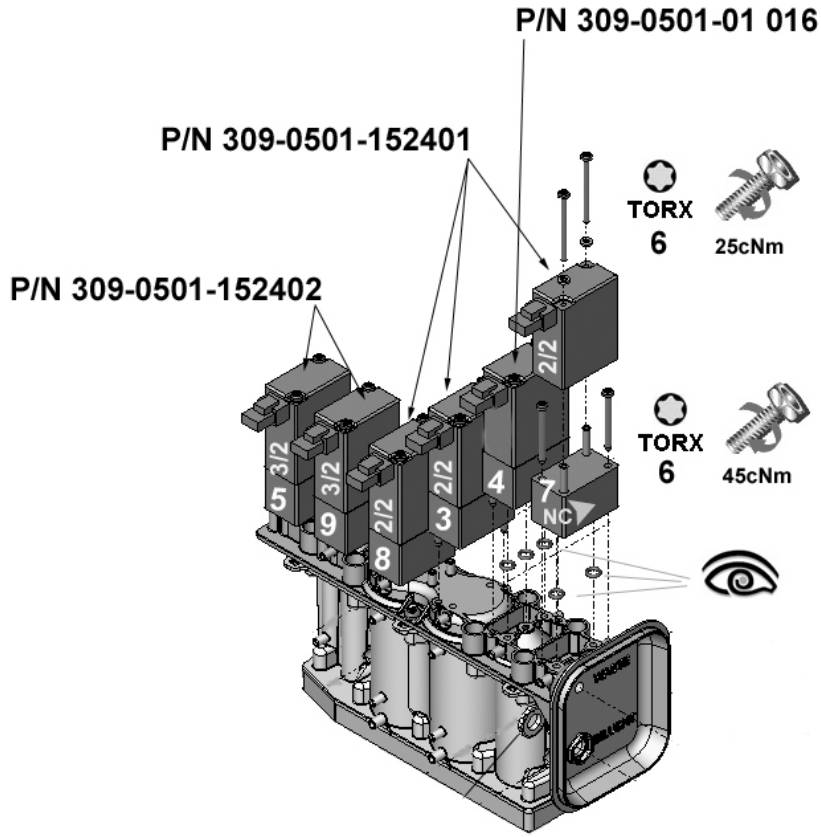
Counting manifold valves position



Syringe tubing position



Syringe manifold valves position

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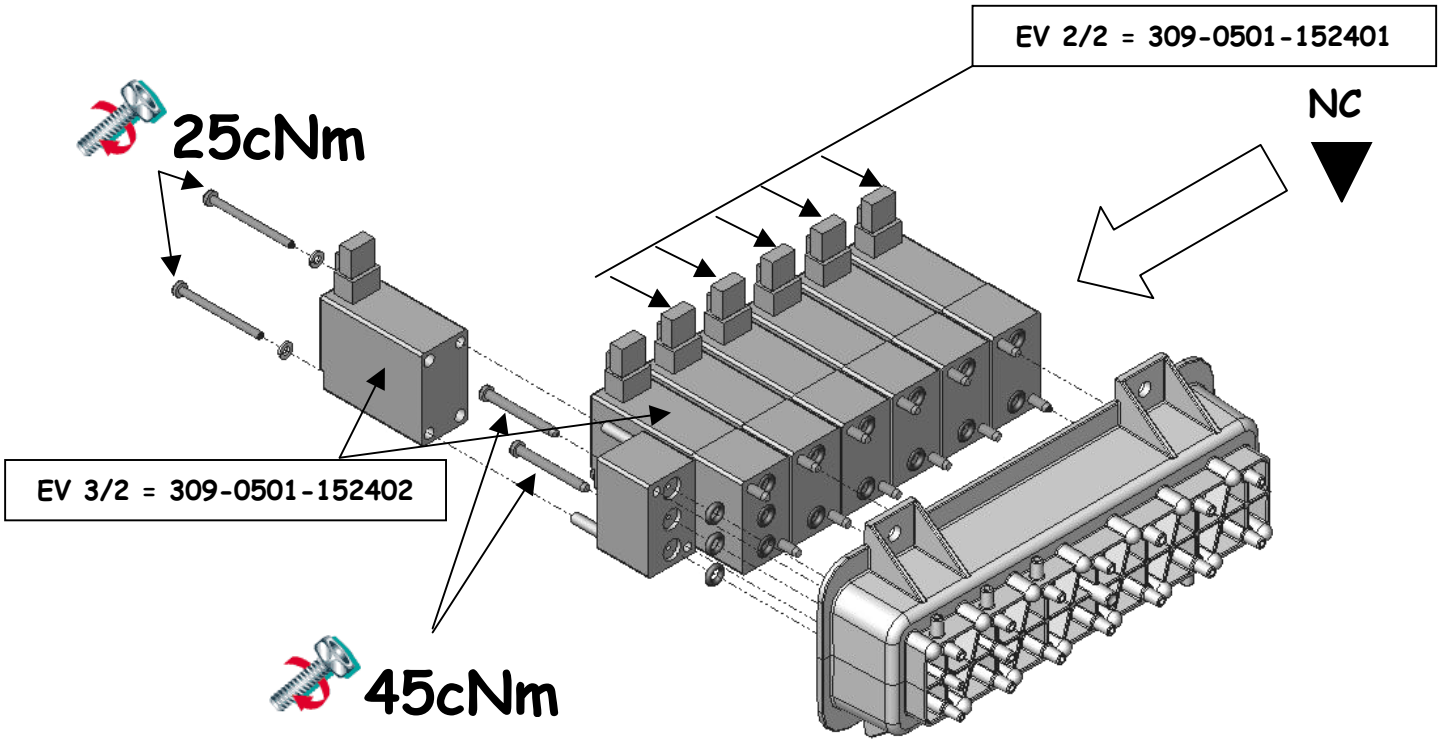
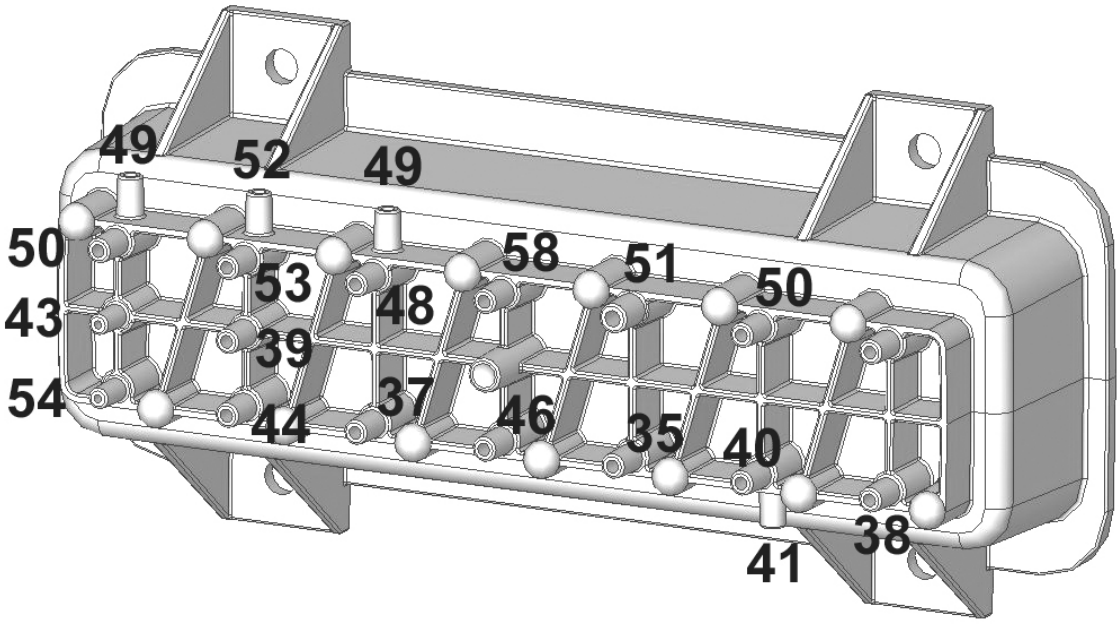
2.5.3 Optical Manifold tubing and valves position





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2.6 SIZE & LENGTH TUBING

To ensure perfect results it is mandatory to respect the size and the length of the tubing.

			ID 0.38 mm	ID 0.89 mm	ID 1,02 mm	ID 1,3x3mm	ID 1,52x3,2mm	ID 2,06x4mm	ID 2,29 mm	ID 2,79 mm	ID 3x6mm	ID 5x8mm	ID 2,4x4mm
Part Number	REV	Designation											
005-1001-90 05	A	Tubing 5						210mm					
005-1001-90 06	A	Tubing 6						170mm					
005-1001-90 08	A	Tubing 8					80mm						
005-1001-90 12	A	Tubing 12					60mm						
005-1001-90 13	A	Tubing 13					250mm						
005-1001-90 14	B	Tubing 14					250mm						
005-1001-90 15	A	Tubing 15					1000mm						
005-1001-90 17	A	Tubing 17					80mm						
005-1001-90 18	A	Tubing 18					80mm						
005-1001-90 21	B	Tubing 21					600mm						
005-1001-90 22	A	Tubing 22				200mm							
005-1001-90 23	A	Tubing 23 - DILUENT									1500mm		
005-1001-90 24	A	Tubing 24 - WASTE									1500mm		
005-1001-90 25	A	Tubing 25										55mm (45°)	
005-1001-90 26	A	Tubing 26										5mm	
005-1002-90 03	A	Tubing 3						135 + 20 mm					
005-1002-90 09	A	Tubing 9				40mm							
005-1002-90 10	A	Tubing 10		500mm					2 X 10mm				
005-1002-90 30	A	Tubing 30				130mm							5mm
005-1002-90 31	A	Tubing 31				80mm							5mm
005-1002-90 32	A	Tubing 32					510mm						
005-1002-90 33	B	Tubing 33				240mm							
005-1002-90 34	A	Tubing 34					270mm						
005-1002-90 35	A	Tubing 35						150mm					
005-1002-90 36	A	Tubing 36						250mm					
005-1002-90 37	A	Tubing 37					180mm						
005-1002-90 38	A	Tubing 38						200mm					
005-1002-90 39	A	Tubing 39						180mm					
005-1002-90 40	A	Tubing 40					960mm						
005-1002-90 41	A	Tubing 41					200mm						
005-1002-90 42	A	Tubing 42					180mm						
005-1002-90 43	A	Tubing 43			250mm			15mm	2 X 15mm				
005-1002-90 44	A	Tubing 44						270mm					
005-1002-90 45	A	Tubing 45						100mm					
005-1002-90 46	A	Tubing 46					400mm						
005-1002-90 47	A	Tubing 47			260mm			15 mm	2 X 15mm				
005-1002-90 48	A	Tubing 48					150mm						
005-1002-90 49	A	Tubing 49					70mm						
005-1002-90 50	A	Tubing 50	80mm					2 X 20 mm					
005-1002-90 51	A	Tubing 51								180mm			
005-1002-90 52	A	Tubing 52					50mm						
005-1002-90 53	A	Tubing 53					60mm						
005-1002-90 54	A	Tubing 54			355mm								
005-1002-90 55	A	Tubing 55			140mm				15mm				
005-1002-90 56	A	Tubing 56					10mm						
005-1002-90 57	A	Tubing 57						80mm					

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3. ELECTRIC & ELECTRONIC

3.1 GENERALITIES

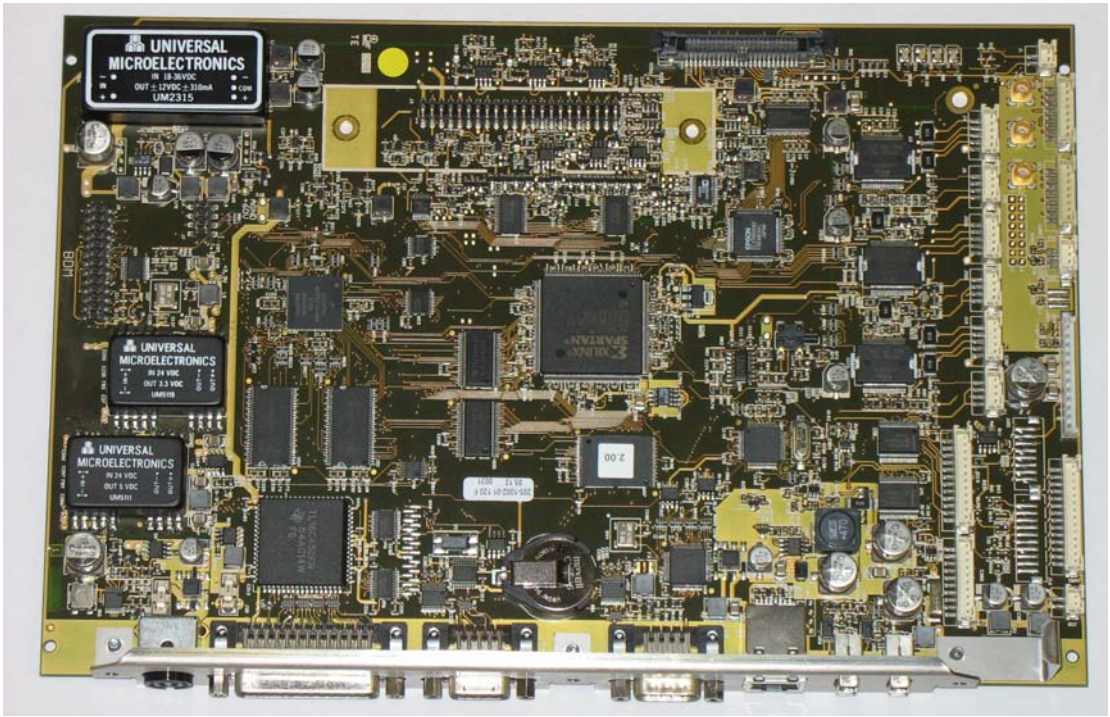
Only three boards compose the MYTHIC 22 :

- the CPU main board
- the preamplifier board
- and the GUI board

	- In the case of replacement of the main board or preamplifier board, be aware of the sensibility of this board to the electrical static discharge (ESD). **- Before operating check the earth connection and use the antistatic bag supply with the board. Please contact your Orphée for more information.** **- Be careful with the edge of the metal sheets after having dismantled the covers.**

3.2 ELECTRICS PARTS VIEW

3.2.1 Main board (205-1002-01)



The mono electronic board is located between the hydraulic part and the reagent tray.
The board, driven by a 32-bit processor, manages the following parts :

- Sample needle, rocker, syringe block motors.
- Display and keyboard.
- Connexion mode (RS232, Ethernet, …).
- Printer.
- Measurement (Counting, hemoglobin measurement).
- Data processing.
- External barcode reader.

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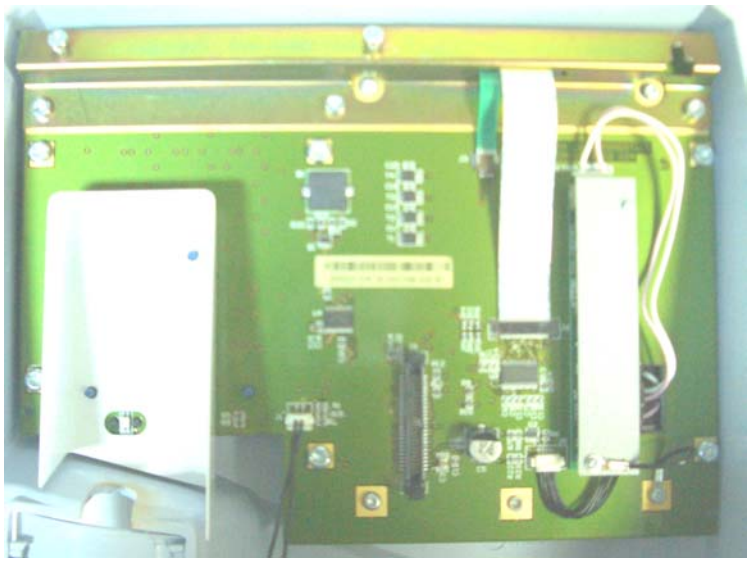
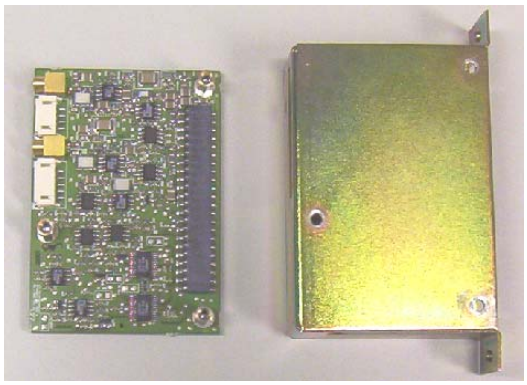
3.2.2 GUI board (205-1002-02)



3.2.3 Preamplifier board (205-1001-03)



3.2.4 Power supply block

MYTHIC 22 is supplied with an external power supply block.

	- In the case of replacement of the main power wire supplied with the MYTHIC 22 the new one must comply with the local regulation. **- The MYTHIC 22 has been certified with the power supply adapter provided with the machine. The use of another external power supply is not guaranteed. Please contact your Orphée's representative.**

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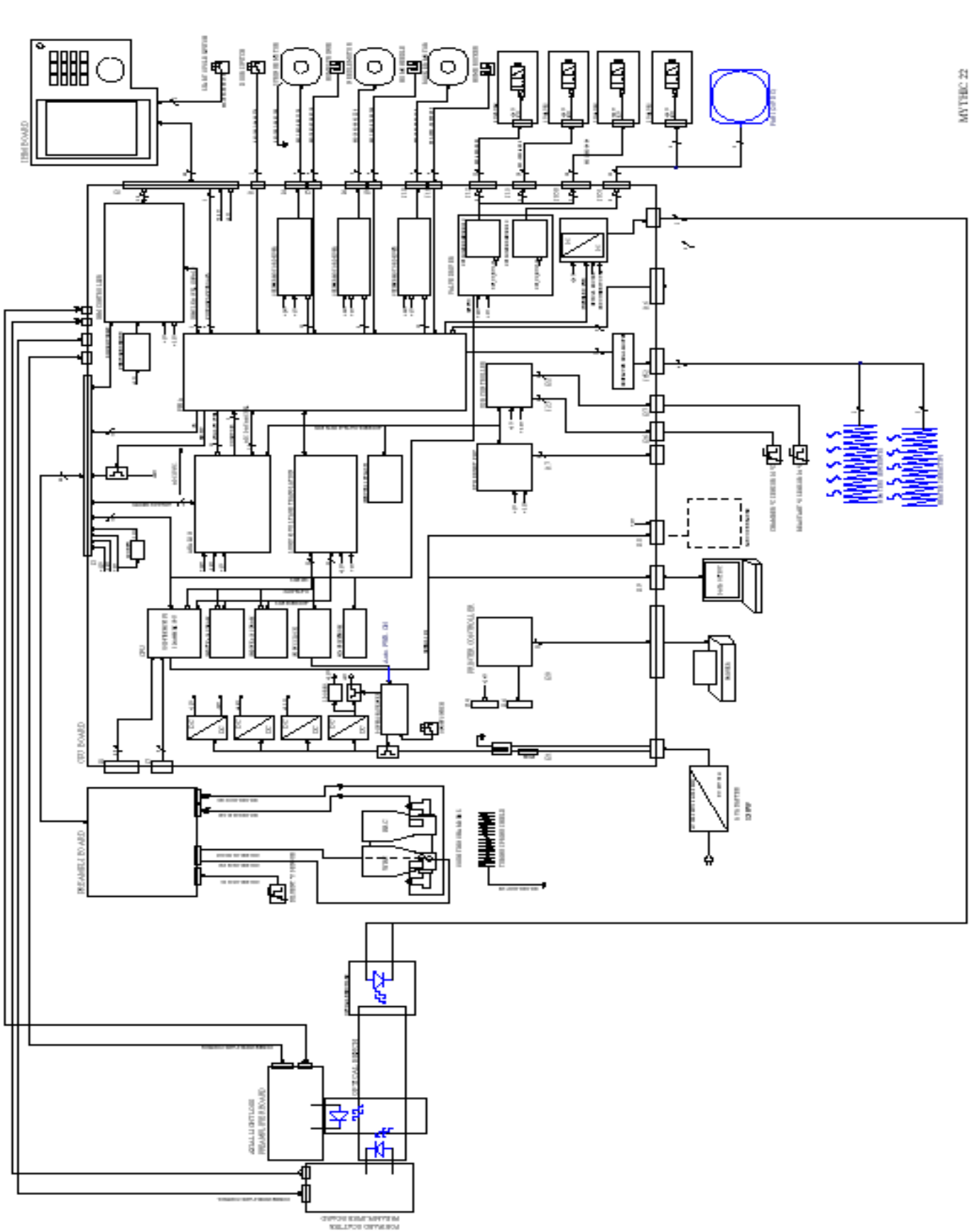
3.3 ELECTRONIC DIAGRAM



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3.4 WIRING DIAGRAM

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4 FLAGS & ALARMS

MYTHIC 22 manages 22 different flags. These flags allow the user to be alerted if there is a mistake which can affect the quality of the results. All of these flags appear on the right of the result.

	In presence of one or more flags, it is recommended to check the result by a conventional measure or on blood smear.

NOTA : Most of these alarms can be modified by the user (see section **3** of the **User's Manual**).

4.1 GENERAL FLAGS

The following alarms are common for all parameters.

XXX ***** : Counting or measure rejection . Can appear with WBC, RBC, PLT and HGB (see section **8.5.3** for HGB and section **8.5.2** for DIF parameters).

XXX**D** : Higher than linearity limits but lower than the reportable limits. WBC, RBC, PLT, HCT, HGB.

+++D : Higher than the reportable limits. WBC, RBC, PLT, HCT, HGB.

---- : Rejected value.

h : results higher than normal value.

b : results lower than normal value.

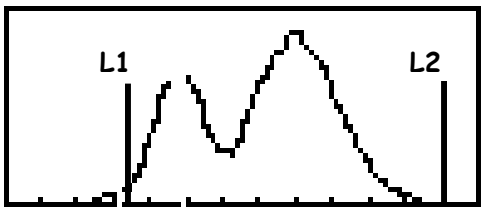
H : results higher than panic value.

B : results lower than panic value.

4.2 LEUCOCYTE FLAGS

4.2.1 WBC curve flags

This curve is done by the WBC channel measurement and does not appear on the normal results screen. The flags **L1** and **L5** complete the flags N2 and IC.



FLAG	CHANNELS	MEANS	% VALUE	# VALUE
L1	Begining of the curve to **L1**	Presence of platelet aggregate, erythroblast or small lymphocytes.	Percentage of cells in the zone in regard of the number of lymphocytes.	Number of cells in the zone.
L5	**L5** to the ned of the curve	Presence of Immature Cells (from the mono or polynucleated cells line)	Percentage of cells in the zone in regard of the total number of leucocytes in the curve.	Number of cells in the zone.

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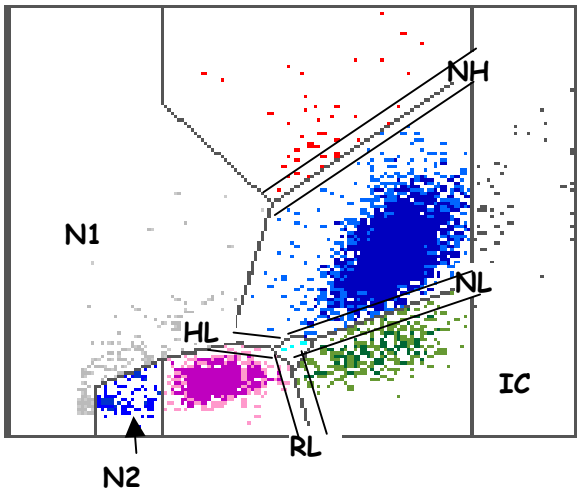
4.2.2 Scattergram flags



All the followings flags level are adjustable in the 20 types of blood (see section **3.4.4** of the User's manual).

FLAG	MEANS	SUSPICION	% VALUE	# VALUE
N1	**N**oise **1**	Presence of platelet aggregate, debris or resistant RBC	Percentage of cells in the zone in regard of the total number of leucocytes in the scattergram.	Number of cells in the zone.
N2	**N**oise **2**	Presence of platelet aggregate, erythroblast or small lymphocytes.	Percentage of cells in the zone in regard of the number of lymphocytes.	Number of cells in the zone.
IC	**I**mmature **C**ells	Presence of **I**mmature **C**ells (from the mono or polynucleated cells line)	Percentage of cells in the zone in regard of the total number of leucocytes in the scattergram.	Number of cells in the zone.
RL	**R**ight **L**ymphocytes	Presence of atypical lymphocytes or basophiles.	Percentage of cells in the zone in regard of the number of lymphocytes and monocytes.	Number of cells in the zone.
HL	**H**igh **L**ymphocytes	Presence of basophiles, small neutrophils (without granulations or few segmented), band cells.	Percentage of cells in the zone in regard of the number of lymphocytes and neutrophils.	Number of cells in the zone.
NL	**N**eutrophils **L**ow	Presence of small neutrophils (without granulations or few segmented), band cells or hyper basophil monocytes.	Percentage of cells in the zone in regard of the number of monocytes and neutrophils.	Number of cells in the zone.
NH	**N**eutrophils **H**igh	Presence of giant neutrophils, hyper segmented neutrophils, eosinophils with few granulations or damaged eosinophils.	Percentage of cells in the zone in regard of the number of eosinophils and neutrophils.	Number of cells in the zone.

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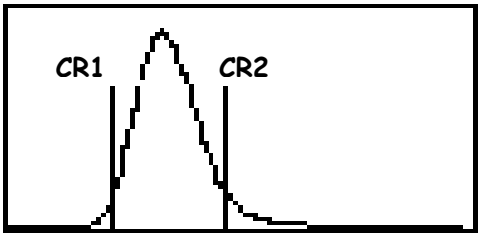
4.2.3 DIF parameters display rules

	DIF % VALUE	DIF # VALUE
WBC < 0,5 $\times 10^3/mm^3$	XXX *	XXX *
WBC > 150 $\times 10^3/mm^3$	---	---
WBC rejet (*)	---	---
(NL & (RL or LH)) or (HL & RL)	BAS *	BAS *

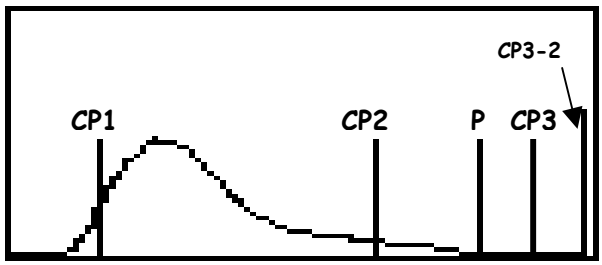
In any case if one or more DIF parameters (LYC, MON, NEU, EOS or BAS) are following with a star (*) the sample must be checked on smear.

4.3 ERYTHROCYTE AND HGB FLAGS



FLAG	CHANNELS	MEANS	% VALUE	# VALUE
FR1	**0 to CR1**	Abnormal quantity of microcytes at the left side	Percentage of cells in the zone in regard of the number of erythrocyte.	Number of cells in the zone.
FR2	**CR2 to the end**	Abnormal quantity of macrocytes at the right side	Percentage of cells in the zone in regard of the number of erythrocyte.	Number of cells in the zone.
*	Appear with HGB result.	Bad measure of the HGB blank.	Not Available	Not Available

4.4 PLATELET FLAGS



FLAG	CHANNELS	MEANS	% VALUE	# VALUE
FP1	**0** to **CP1**	Presence of abnormal quantity of debris or small cells	Percentage of cells in the zone in regard of the number of platelets until **P**.	Number of cells in the zone.

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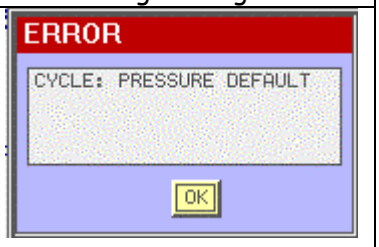
FP2	**P** to **CP2**	Presence of schizocytes	Percentage of cells in the zone in regard of the number of platelets until **P**.	Number of cells in the zone.
FP3	**CP3** to **CP3-2**	Presence of microcytes	Percentage of cells in the zone in regard of the number of platelets until **P**.	Number of cells in the zone.

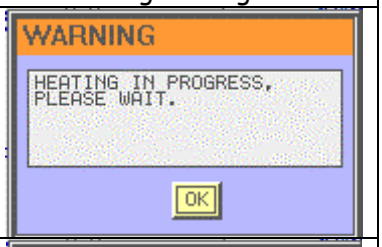
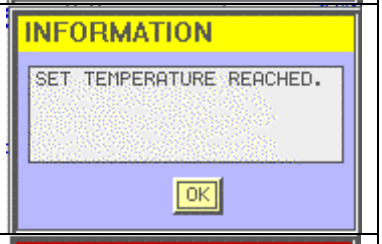
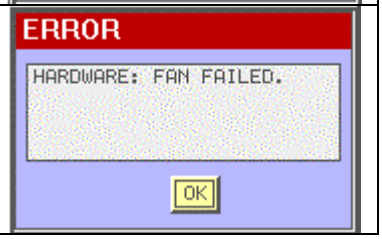
4.5 MACHINE FLAGS

This section describe the main machine flags displayed in case of problem for all the other refer to the section **10**.

4.5.1 Pressure flag

Occurrences conditions	Consequences	Flag message
Pressure default.	Emergency stop. (check : - the tubing connection of the pressure sensor - if all the tubing around the waste syringes are connected - a leak on the waste syringe piston).	

4.5.2 Thermal flags

Occurrences conditions	Consequences	Flag message
Set temperature (reagent or enclosure) not reached	Run sample inaccessible.	
	The set temperature are reached.	
Fan failure	Heating enclosure stopped.	

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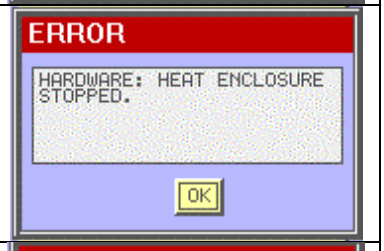
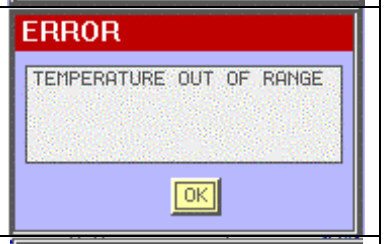
Occurrences conditions	Consequences	Flag message
Reagent temperature > **60°C**	Heating reagent stopped, all the fluidic cycles are inaccessible (except for the technician).	
Reagent temperature > **70°C**	Machine switch off (check the heating bloc connection). Only the technician can restart the machine (See section **7.2.2.4**).	
Enclosure temperature > **50°C**	Heating (reagent and enclosure) stopped, all the fluidic cycles are inaccessible (except for the technician).	
Enclosure temperature > **55°C**	Machine switch off (check temperature sensor connection in the fluidics part). Only the technician can restart the machine (See section **7.2.2.4**).	
- Reagent temperature out of range (**< 34°C & > 45°C**). - Enclosure temperature out of range (**< 32°C & > 40°C**). - Room temperature : **< 17° or > 35°C**	Run sample inaccessible	
Reagent heating at 100% and no temperature increase during **2mn**	Heating switch off.	
Enclosure heating at 100% and no temperature increase during **5mn**	Heating switch off.	

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5. OUTPUT FORMAT

The choice of the setting (format, speed …) is explained in page N° 24 of the User's Manual.

5.2 C2 FORMAT

5.2.1 General principle

Mythic begins frame with headline
MYTHIC X ;Y ;Z(;eventual parameters)[CR]
Where :

X is the number of the Mythic (maximum 2 characters).
Y is the user identification (login) (maximum 10 characters).
Z frame identification.

The decimal separator is the dot (.).
The field separator is « ; ».
The line separator and the indicator of end is CR.
The uncut frame are :

Request of results send with send results.
Send calibration pack with results of calibration.

All the lines of a frame must be sent. (If no information, the parameter is not fulfilled).
All the identifiant (frame or parameters) are in block letters.
All editable text field (Identification, lot) are coded in UTF8 (non Latin languages management).

5.2.2 FRAMES

5.2.2.1 REQUEST TO SEND RESULTS

Mythic sends results after acknowledgement by the host.
Frames used in « Hand-Shake » mode.

5.2.2.1.1 Request to send results

MYTHIC X ;Y ;RESULT_READY ;Size[CR]

5.2.2.1.2 ACKNOWLEDGEMENT REQUEST TO SEND RESULTS

ACK_RESULT_READY[CR]

5.2.2.1.3 ACKNOWLEDGEMENT RESULTS

ACK_RESULT;A;B[CR]
Where A : OK or Error Code, B : Reserved.

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5.2.2.2 ROUTINE RESULTS

MYTHIC X ;Y ;RESULT [CR]
DATE;jj/mm/aaaa [CR]
TIME;hh:mm:ss [CR]
MODE;NORMAL [CR]
UNIT ; Unité [CR] (0, 1 ou 2)
SEQ;Sequence number; 0 [CR]
SID;Sample Identification [CR]
PID;Patient Identification [CR]
ID;Identification [CR]
TYPE; Blood Type [CR]
TEST; Run Test [CR]
OPERATOR ; login Mythic when analysis is performed [CR]
WBC; Value;A;B; low panic; low normal; high normal; High panic [CR]
RBC; Value;A;B; low panic; low normal; high normal; High panic [CR]
HGB; Value;A;B; low panic; low normal; high normal; High panic [CR]
HCT; Value;A;B; low panic; low normal; high normal; High panic [CR]
MCV; Value;A;B; low panic; low normal; high normal; High panic [CR]
MCH; Value;A;B; low panic; low normal; high normal; High panic [CR]
MCHC; Value;A;B; low panic; low normal; high normal; High panic [CR]
RDW; Value;A;B; low panic; low normal; high normal; High panic [CR]
PLT; Value;A;B; low panic; low normal; high normal; High panic [CR]
MPV; Value;A;B; low panic; low normal; high normal; High panic [CR]
THT; Value;A;B; low panic; low normal; high normal; High panic [CR]
PDW; Value;A;B; low panic; low normal; high normal; High panic [CR]
LYM%; Value;A;B; low panic; low normal; high normal; High panic [CR]
MON%; Value;A;B; low panic; low normal; high normal; High panic [CR]
GRA%; Value;A;B; low panic; low normal; high normal; High panic [CR]
LYM; Value;A;B; low panic; low normal; high normal; High panic [CR]
MON; Value;A;B; low panic; low normal; high normal; High panic [CR]
GRA; Value;A;B; low panic; low normal; high normal; High panic [CR]
WBC CURVE; Channel value1;… ; Channel value 128 [CR]
WBC THRESHOLDS;S1;S2;S3 [CR]
RBC CURVE; Channel value1;… ; Channel value 128 [CR]
RBC THRESHOLDS; S1;S2 [CR]
PLT CURVE; Channel value1;… ; Channel value 128 [CR]
PLT THRESHOLDS; S1 [CR]
ALARMS;x;x;x;x;x;x;x;x;x;x;x [CR]
INTERPRETIVE_WBC;y;y;y;y;y;y;y;y;y;y;y;y [CR]
INTERPRETIVE_RBC;y;y;y;y;y;y;y;y;y;y;y;y [CR]
INTERPRETIVE_PLT;y;y;y;y;y;y;y;y;y;y;y;y [CR]
COMMENT; RUO message if necessary
END_RESULT; Checksum value [CR]

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A : None or * (Rejection flag)
B : None or D or H or h or l or L (Out of limit flags)
x : None or Alarm.
y : None or pathologic message.
S1 S2 S3 : thresholds of the curves (Between 0 and 127).
This frame is available for LMG test.
Numeric values should be replaced by +++++ (5 plus) for a out of range result or by ….. (5 dots) donor invalid results.
If RUO mode is not activated, PCT and PDW are not transmitted.

5.2.2.2.1 Alarm list.

S-UP NOT DONE
S-UP FAIL
QC NOT DONE
QC FAIL
INS-M
INS-T
INS-P
INS-R
INS-H
L1
L2
L3
L4
L5
R1
R2
P1
P2
P3

5.2.2.2.2 WBC pathologic alarms

LEU>
LEU<
LYM>
LYM<
GRA>
GRA<
MON>
NO_INTERPRETATION

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5.2.2.2.3 RBC pathologic messages

ANE
ERY>
MICRO
MACRO
MICR>
MICR>>
MICR>>>
MACR>
MACR>>
MACR>>>
ANIS>
ANIS>>
ANIS>>>
HYPOCR
COLDAGG
NO_INTERPRETATION

5.2.2.2.4 PLT pathologic messages

THR>
THR<
MACROP
PLTAGGR
MICROC
SCHIZ
CELLD
NO_INTERPRETATION

5.2.2.3 CALIBRATION

MYTHIC X;Y;CALIBRATION;Y ;Calibration date ;calibration time ;LOT ;Expiry date ;Creation date ;Creation time ; ;X ;A ;B ;C ;D ;F ;Number of results [CR]
WBC; target value ; tolerance [CR]
RBC; target value ; tolerance [CR]
HGB; target value ; tolerance [CR]
HCT; target value ; tolerance [CR]
PLT; target value ; tolerance [CR]
END_CALI ; Checksum [CR]
Where
X : User who creates the lot.
Y : User who performs the calibration.
A, B, C, D and F are the coefficient of the calibration, for respectively, WBC, RBC, HGB, HCT and PLT.
Follow N results which served for calibration.
In case of manual input of the coefficients, information of the lot are empty and the number of results is null.
Acknowledgement of the calibration is done by the frame
ACK_CALI ;Lot;A [CR]
Where A : OK or Error Code.

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5.2.2.3.1 Results

MYTHIC X ;Y ;RESULT [CR]
DATE;dd/mm/yyyy [CR]
TIME;hh:mm:ss [CR]
MODE;CALIBRATION [CR]
UNIT ; Unit [CR]
SEQ;Number of sequence; 0 [CR]
TEST;LMG [CR]
OPERATOR ; login Mythic when analysis is performed [CR]
WBC; Numerical Value; A;B;;;; [CR]
RBC; Numerical Value; A;B;;;; [CR]
HGB; Numerical Value; A;B;;;; [CR]
HCT; Numerical Value; A;B;;;; [CR]
PLT; Numerical Value; A;B;;;; [CR]
END_RESULT; Checksum value [CR]

A and B like routine results.

5.2.2.4 QC

5.2.2.4.1 Results

MYTHIC X ;Y ;RESULT [CR]
DATE;dd/mm/yyyy [CR]
TIME;hh:mm:ss [CR]
MODE;QC [CR]
UNIT ; Unit [CR]
SEQ;Number of sequence; 0 [CR]
LOT, Number of lot [CR] (Maximum 10 characters)
LOT DATE; Creation Dateof the lot ; time of creation [CR]
EXPIRY DATE; Expiry date [CR]
USER; User (login) who created the lot [CR]
TEST;LMG [CR]
OPERATOR ; login Mythic when analysis is performed [CR]
WBC; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
RBC; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
HGB; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
HCT; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
MCV; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
MCH; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
MCHC; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
RDW; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
PLT; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
MPV; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
THT; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
PDW; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
LYM%; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
MON%; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
GRA%; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
LYM; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
MON; Value;A;B; Target - tolerance;;; Target + tolerance [CR]

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GRA; Value;A;B; Target - tolerance;;; Target + tolerance [CR]
END_RESULT; Cheksum value [CR]
A and B like routine results.

5.2.2.5 REPEATABILITY

5.2.2.5.1 Results

MYTHIC X ;Y ;RESULT [CR]
DATE;dd/mm/yyyy [CR]
TIME;hh:mm:ss [CR]
MODE;REPEATABILITY [CR]
UNIT ; Unit [CR]
SEQ;Number of sequence; 0 [CR]
TEST;LMG [CR]
OPERATOR ; login Mythic when analysis is performed [CR]
WBC; Value;A;B;;;; [CR]
RBC; Value; A;B;;;; [CR]
HGB; Value; A;B;;;; [CR]
HCT; Value; A;B;;;; [CR]
MCV; Value; A;B;;;; [CR]
MCH; Value; A;B;;;; [CR]
MCHC; Value; A;B;;;; [CR]
RDW; Value; A;B;;;; [CR]
PLT; Value; A;B;;;; [CR]
MPV; Value; A;B;;;; [CR]
THT; Value; A;B;;;; [CR]
PDW; Value; A;B;;;; [CR]
LYM%; Value; A;B;;;; [CR]
MON%; Value; A;B;;;; [CR]
GRA%; Value; A;B;;;; [CR]
LYM; Value; A;B;;;; [CR]
MON; Value; A;B;;;; [CR]
GRA; Value; A;B;;;; [CR]
END_RESULT; Checksum value [CR]

A and B like routine results.

5.2.3 CHECKSUM

For the frames with a few number of lines, the block is finished with an end line with a checksum. This sum is calculated from the beginning of the headline to the end of the line finishing the block.
The algorithm of the calculation for the sum is :

CRC = 0xFFFF
For each byte
Work on high neeble:
Indix = byte XOR CRC
Indix = Indix AND 000F
CRC = Table(Indix) XOR (CRC divided by 16)
Work on low neeble:

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Indix = byte divided by 16
Indix = Indix XOR CRC
Indix = Indix AND 000F
CRC = Table(Indix) XOR (CRC divided by 16)

Example in C language:

```
/*Hash table :*/
static const unsigned short ausCrcTab1[] =
 {
 0x0000, 0xCC01,0xD801,0x1400,0xF001,0x3C00,0x2800,0xE401,
 0xA001,0x6C00,0x7800,0xB401,0x5000,0x9C01,0x8801,0x4400,
};

/* CRC computing */

unsigned short calc_crc(unsigned char *pucData, long lSize)
{
unsigned short usAcc1 = 0xFFFF;

 while ( lSize > 0 )
        {
        /* gestion par quartet du calcul  */
        usAcc1 = ausCrcTab1[(*pucData ^ usAcc1) & 15] ^ (usAcc1 >> 4);
        usAcc1 = ausCrcTab1[((*pucData >> 4) ^ usAcc1) & 15] ^ (usAcc1 >> 4);

        pucData++;
        lSize--;
        }

return(usAcc1);
}
```

^ : XOR.
>> : Logical shift right.
& : logical AND.

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6. PARTS LIST & BLOW UP VIEW

6.1 PARTS LIST

6.1.2 Two years spare parts kit

		Part Number :	**002-1002-50 20 02**
		Designation :	**Mythic 22 (2 years) spare parts kit**
QTY	**Rev**	**Part Number**	**Designation**
1	A	002-1002-50 11	Mythic 22 Tubings kit
2	A	005-1001-03 03	Piston Ø 22
1	A	010-2501-02 05	Sampling needle
1	A	010-2501-03 01	Piston Ø 6.5 - Syringes module
1	A	010-2501-03 02	Piston Ø 16 - Syringes module
1	A	010-2501-03 09	Piston Ø 1.6 - Syringes module
1		312-0501-1554 262	O-ring Ø15.54x2.62 Silicone 60SH
2		312-0501-2189 262	O-ring Ø21.89x2.62 Silicone 60SH
1		312-0501-630 240	O-ring Ø6.3x2.4 Silicone 60SH
2		312-0505-1310 160	O-ring Ø13.1x1.6 Fluocarbon 80SH
3		312-0505-140 125 010	O-ring Ø1.4x1.25 Fluocarbon 80SH
2		312-0505-500 100	O-ring Ø5x1 Fluocarbon 80SH

6.1.2 Maintenance kit

		Part Number :	**002-1002-50 02**
		Designation :	**Mythic 22 Maintenance Kit**
QTY	**Rev**	**Part Number**	**Designation**
1	A	005-1001-90 016 032	Tygon tubing L=1000mm 1.52x3.2mm
1	A	005-1001-90 020 040	Tygon tubing L=500mm 2.06x4mm
1	A	005-1002-90 010	Tygon tubing L=500mm 1.02mm
1	A	005-1002-90 013	Tygon tubing L=500mm 1.3mm
1	A	005-1002-90 10	Tubing 10
1	A	005-1002-90 50	Tubing 50
4	A	010-2501-06 03	Bottle cap filter
5		153-0101-100 25	Cables Ties
1		312-0505-140 125 010	O-ring Ø1.4x1.25 Fluocarbon 80SH
1		410-0501-02 02	Silicon grease (3gr)
1		700-1101-10	Short Arm TORX T10 Tool
1		700-1101-20	Short Arm TORX T20 Tool

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6.1.2 O-rings kit

Part Number : 002-1002-50 10
Designation : Mythic 22 O-Rings kit

QTY	Rev	Part Number	Designation
1		312-0501-1554 262	O-ring Ø15.54x2.62 Silicone 60SH
2		312-0501-2189 262	O-ring Ø21.89x2.62 Silicone 60SH
1		312-0501-630 240	O-ring Ø6.3x2.4 Silicone 60SH
2		312-0505-1310 160	O-ring Ø13.1x1.6 Fluocarbon 80SH
3		312-0505-140 125 010	O-ring Ø1.4x1.25 Fluocarbon 80SH
2		312-0505-500 100	O-ring Ø5x1 Fluocarbon 80SH

6.1.2 Tubing kit

Part Number : 002-1002-50 11
Designation : Mythic 22 Tubing kit

QTY	Rev	Part Number	Designation
1	A	005-1001-90 05	Tubing 5
1	A	005-1001-90 06	Tubing 6
1	A	005-1001-90 08	Tubing 8
1	A	005-1001-90 12	Tubing 12
1	A	005-1001-90 13	Tubing 13
1	B	005-1001-90 14	Tubing 14
1	A	005-1001-90 17	Tubing 17
1	A	005-1001-90 18	Tubing 18
1	B	005-1001-90 21	Tubing 21
1	A	005-1001-90 22	Tubing 22
1	A	005-1001-90 25	Tubing 25
1	A	005-1002-90 03	Tubing 3
1	A	005-1002-90 09	Tubing 9
1	A	005-1002-90 10	Tubing 10
1	B	005-1002-90 23	M22 - DILUENT Tubing
1	B	005-1002-90 24	M22 - WASTE Tubing
1	A	005-1002-90 30	Tubing 30
1	A	005-1002-90 31	Tubing 31
1	A	005-1002-90 32	Tubing 32
1	B	005-1002-90 33	Tubing 33
1	A	005-1002-90 34	Tubing 34
1	A	005-1002-90 35	Tubing 35
1	A	005-1002-90 36	Tubing 36
1	A	005-1002-90 37	Tubing 37
1	A	005-1002-90 38	Tubing 38
1	A	005-1002-90 39	Tubing 39
1	A	005-1002-90 40	Tubing 40
1	A	005-1002-90 41	Tubing 41
1	A	005-1002-90 42	Tubing 42
1	A	005-1002-90 43	Tubing 43

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1	A	005-1002-90 44	Tubing 44
1	A	005-1002-90 45	Tubing 45
1	A	005-1002-90 46	Tubing 46
1	A	005-1002-90 47	Tubing 47
1	A	005-1002-90 48	Tubing 48
1	A	005-1002-90 49	Tubing 49
1	A	005-1002-90 50	Tubing 50
1	A	005-1002-90 51	Tubing 51
1	A	005-1002-90 52	Tubing 52
1	A	005-1002-90 53	Tubing 53
1	A	005-1002-90 54	Tubing 54
1	A	005-1002-90 55	Tubing 55
1	A	005-1002-90 56	Tubing 56
1	A	005-1002-90 57	Tubing 57
1	B	005-1002-90 58	Tubing 58

6.1.2 Spare parts list

Designation	Part Number	Qty/Pkg	Unit
150W switching adapter	050-1001-01 150 24	1	UNIT
500mL Straw	005-1002-06 05	1	UNIT
50P Flat Cable	170-5002-06 221	1	UNIT
ALL coaxial cable	005-1002-84 09 200	1	UNIT
ALL Power Cable	005-1002-82 02	1	UNIT
Ambiant Temperature Sensor	005-1002-85 01 550	1	UNIT
Bottle cap filter	010-2501-06 03	10	UNIT
Counting Chambers Sub-Assembly	005-1001-01 01	1	UNIT
Counting Manifold	010-2501-01 03	1	UNIT
Door Flat Screwdriver	700-7101-02	1	UNIT
Electrovalve 2/2	309-0501-152401	1	UNIT
Electrovalve 3/2	309-0501-152402	1	UNIT
Electrovalve 3/2 - 1.6mm	309-0501-01 016	1	UNIT
Enclosure Temperature Sensor	005-1002-85 01 10	1	UNIT
FSC coaxial cable	005-1002-84 09 260	1	UNIT
FSC Power Cable	005-1002-82 01	1	UNIT
Heater Cable	005-1002-85 02	1	UNIT
Heating Module	005-1002-04 02	1	UNIT
Insert foot Ø17 x 11	385-2501-17 11	1	UNIT
Kit Latex (500uL)	465-0110-05	2 x 500	uL
Lubriplate DS-ES	410-0502-01	1	UNIT
LX 300+ Printer	555-6101-01 300	1	UNIT
Lyse Spring 2	005-1002-86 02	1	UNIT
Lyse Spring 3	005-1002-86 03	1	UNIT
M22 - DILUENT Tubing	005-1002-90 23	1	UNIT
M22 - Fluidic Door Switch	002-1002-84 06 270	1	UNIT
M22 - Needle motor cable	005-1002-80 01 2	1	UNIT
M22 - Rocker motor cable	005-1002-80 01 1	1	UNIT
M22 - Rocker Optical Sensor	005-1002-82 880 1	1	UNIT
M22 - Sampling module sub-assembly	005-1001-02 01 22	1	UNIT
M22 - Syringe Body	002-1002-03 05	1	UNIT
M22 - Syringe motor cable	005-1002-80 01 3	1	UNIT
M22 - Syringe Optical Sensor	005-1002-82 880 3	1	UNIT

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M22 - Syringe Valves Cable	005-1002-84 03	1	UNIT
M22 - Syringes motor holder sub-assembly	005-1002-03 07	1	UNIT
M22 - Tubing Ground Cable	005-1002-84 07 080	1	UNIT
M22 - WASTE Tubing	005-1002-90 24	1	UNIT
M22 Cleaner Straw	005-1002-06 06	1	UNIT
M22 Counting Valves Cable	005-1002-84 04	1	UNIT
M22 Optical Valves Cable	005-1002-84 08	1	UNIT
MYTHIC barcode reader	005-1099-87 01	1	UNIT
Mythic 18/22 Keypad	010-2501-04 03	1	UNIT
Mythic 22 (2 years) spare part kit	002-1002-50 20 02	1	UNIT
Mythic 22 CPU Board	205-1002-01	1	UNIT
Mythic 22 IHM Board	205-1002-02	1	UNIT
Mythic 22 Install Kit (CEE)	002-1002-50 01 01	1	UNIT
Mythic 22 Maintenance Kit	002-1002-50 02	1	UNIT
Mythic 22 O-Rings kit	002-1002-50 10	1	UNIT
Mythic 22 Tubings kit	002-1002-50 11	1	UNIT
Designation	**Part Number**	**Qty/Pkg**	**Unit**
MYTHIC 22 User manual	605-1202-02	1	UNIT
Mythic Preamplifier Board	205-1001-03	1	UNIT
Mythic22 LCD Display	555-0102-01 02	1	UNIT
Mythic22 Packaging	500-3003-02	1	UNIT
Needle Belt	353-0301-08 120 19	1	UNIT
Needle carriage	010-2501-02 02	1	UNIT
Needle Motor	005-1001-02 02	1	UNIT
Needle Optical Sensor	005-1001-82 880 300	1	UNIT
Optical Bench	005-1002-01 01	1	UNIT
O-ring Ø1.4x1.25 Fluocarbon 80SH	312-0505-140 125 010	10	UNIT
O-ring Ø13.1x1.6 Fluocarbon 80SH	312-0505-1310 160	10	UNIT
O-ring Ø15.54x2.62 Silicone 60SH	312-0501-1554 262	10	UNIT
O-ring Ø18.77x1.78 Silicone 60SH	312-0501-1877 178	10	UNIT
O-ring Ø21.89x2.62 Silicone 60SH	312-0501-2189 262	10	UNIT
O-ring Ø47.34x1.78 Silicone 60SH	312-0501-4734 178	10	UNIT
O-ring Ø5x1 Fluocarbon 80SH	312-0505-500 100	10	UNIT
O-ring Ø6.35x1.78 Silicone 60SH	312-0501-635 178	10	UNIT
O-ring Ø6.3x2.4 Silicone 60SH	312-0501-630 240	10	UNIT
O-ring Ø9.52x1.78 Silicone 60SH	312-0501-952 178	10	UNIT
O-Ring spacer	010-2501-03 10	1	UNIT
Piston Carriage	010-2501-03 08	1	UNIT
Piston Ø 16	010-2501-03 02	1	UNIT
Piston Ø 22	005-1001-03 03	1	UNIT
Piston Ø 6.5	010-2501-03 01	1	UNIT
Plastic grease SPG35	410-0503-01	1	UNIT
RBC Counting Head	005-1001-01 02 02	1	UNIT
Rinsing head	005-1001-02 04	1	UNIT
Rocker Motor	005-1001-02 03	1	UNIT
Sampling module	005-1001-02 01	1	UNIT
Sampling needle	010-2501-02 05	1	UNIT
Screw CBLX M2 x 10	360-0103-020 100	10	UNIT
Screw CZX M3 x 6	360-0101-030 060	10	UNIT
Screw CZX M3 x 8	360-0101-030 080	10	UNIT
Screw CZX M4 x 20	360-0101-040 200	10	UNIT
Screw CZX M4 x 6	360-0101-040 060	10	UNIT
Screw K 30 x 10	363-0201-030 100	10	UNIT

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Screw K 30 x 8	363-0201-030 080	10	UNIT
Screw K 40 x 10	363-0201-040 100	10	UNIT
Screw RLX M3 x 6	360-0102-030 060	10	UNIT
Screw RLX M4 x 8	360-0102-040 080	10	UNIT
Seal plate	010-2501-03 13	1	UNIT
Short Arm TORX T10 Tool	700-1101-10	1	UNIT
Short Arm TORX T20 Tool	700-1101-20	1	UNIT
Silent bloc M4	385-1001-04 30	4	UNIT
Silicon grease (3gr)	410-0501-02 02	1	UNIT
Silicon grease (tube)	410-0501-01	1	UNIT
Start key Switch	005-1001-84 06 170	1	UNIT
Syringe Motor	005-1001-03 10	1	UNIT
Syringe Motor Holder	005-1001-03 07	1	UNIT
Syringe Piston Ø 1.6	005-1001-03 09	1	UNIT
Tygon tubing 0.89mm	300-0502-009	1000	mm
Tygon tubing 1,3x3mm	300-0502-013 030	1000	mm
Designation	**Part Number**	**Qty/Pkg**	**Unit**
Tygon tubing 1,52x3,2mm	300-0502-016 032	5000	mm
Tygon tubing 1.02mm	300-0502-010	1000	mm
Tygon tubing 2,06x4mm	300-0502-020 040	5000	mm
Tygon tubing 2.29mm	300-0502-023	1000	mm
Tygon tubing 2.79mm	300-0502-028	1000	mm
Vacuum Tank	005-1002-03 01	1	UNIT
WBC Counting Head	005-1001-01 02 01	1	UNIT

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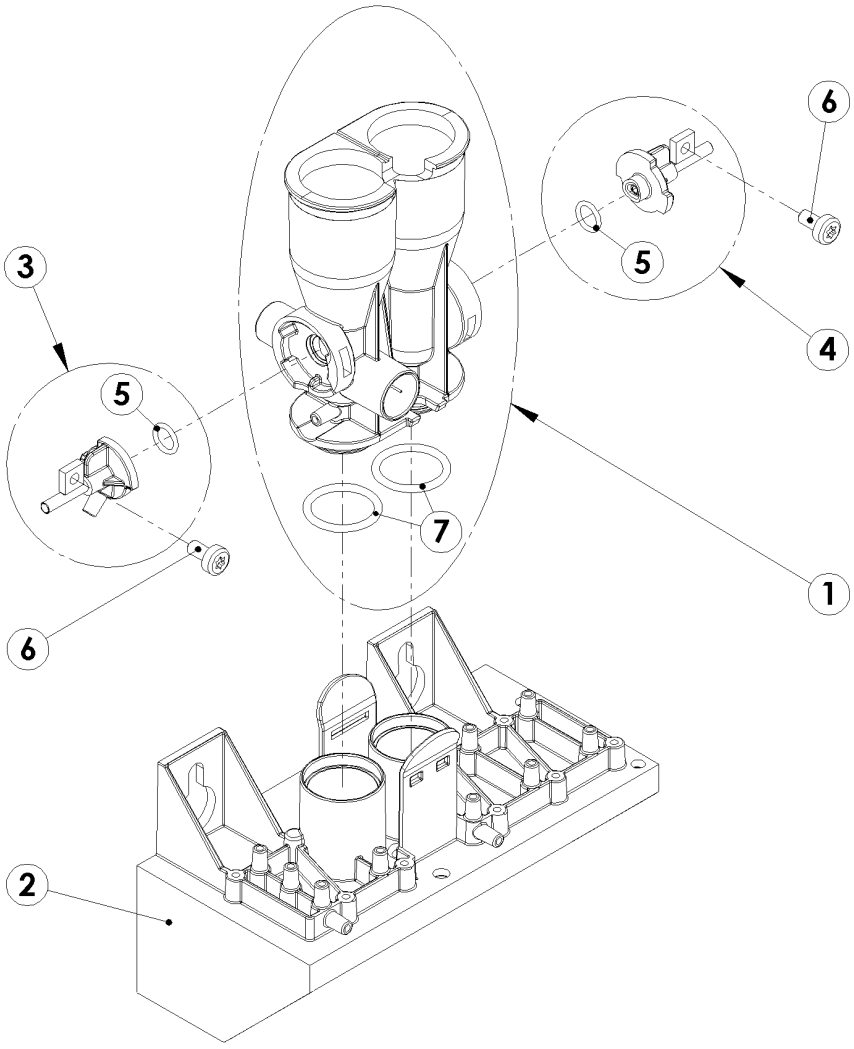
6.2 BLOW UP VIEW

6.2.1 Counting Module



Rep	Part Number	Designation
1	005-1001-01 01	Counting chambers
2	010-2501-01 03	Counting manifold
3	005-1001-01 02 01	WBC Counting Head
4	005-1001-01 02 02	RBC Counting Head
5	312-0505-500 100	O-ring Ø5x1 Silicone 80SH
6	360-0101-030 060	Screw CZX M3 x 6
7	312-0505-1310 160	O-ring Ø13.1x1.6 Fluocarbon 80SH

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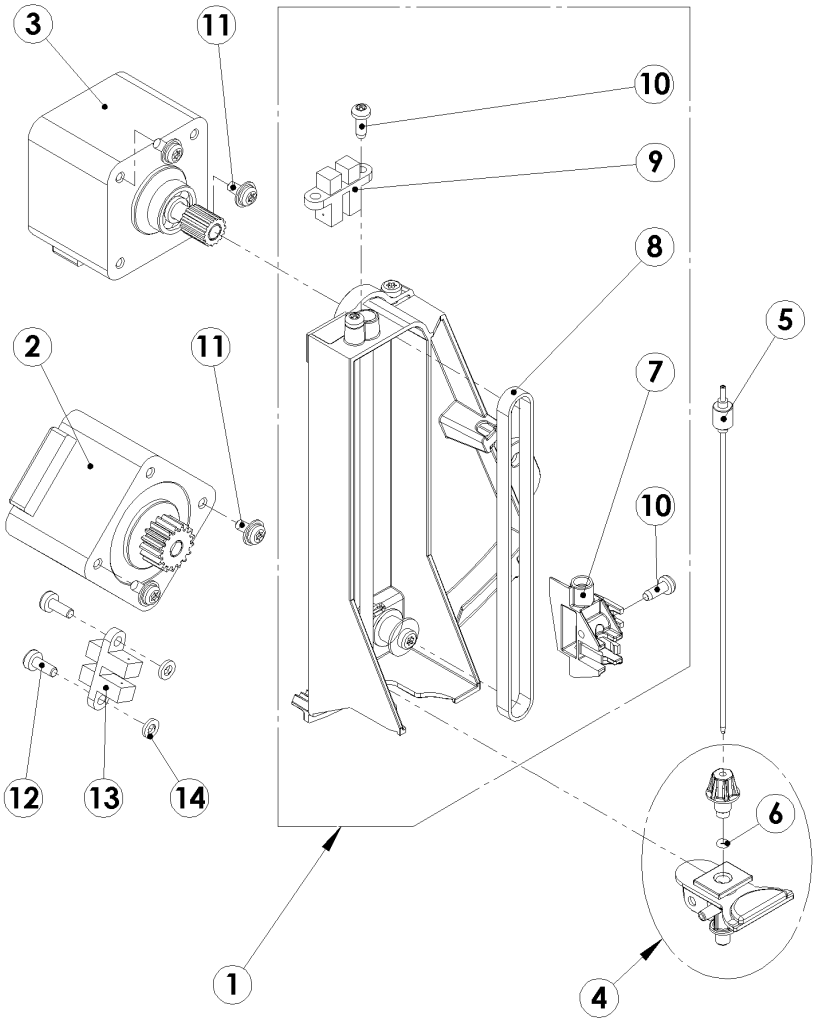
6.2.2 Sampling Module



Rep	Part Number	Designation
1	005-1001-02 01	Sampling module
2	005-1001-02 03	Rocker Motor
3	005-1001-02 02	Needle Motor
4	005-1001-02 04	Rinsing head
5	010-2501-02 05	Sampling Needle
6	312-0505-140 125	O-ring Ø1.4x1.25 Fluocarbon 80SH
7	010-2501-02 02	Needle carriage
8	353-0301-08 120 19	Belt pitch 2.032 (l=4.763-L=243.84)
9	005-1001-82 880 300	Needle Optical Sensor
10	363-0201-030 080	Screw K 30 x 8
11	360-0102-030 060	Screw RLX M3 x 6
12	360-0101-030 080	Screw CZX M3 x 8
13	005-1002-82 880 1	M22 - Rocker Optical Sensor
14	370-4050-030 10	Anti-loss washer Ø3 x 1

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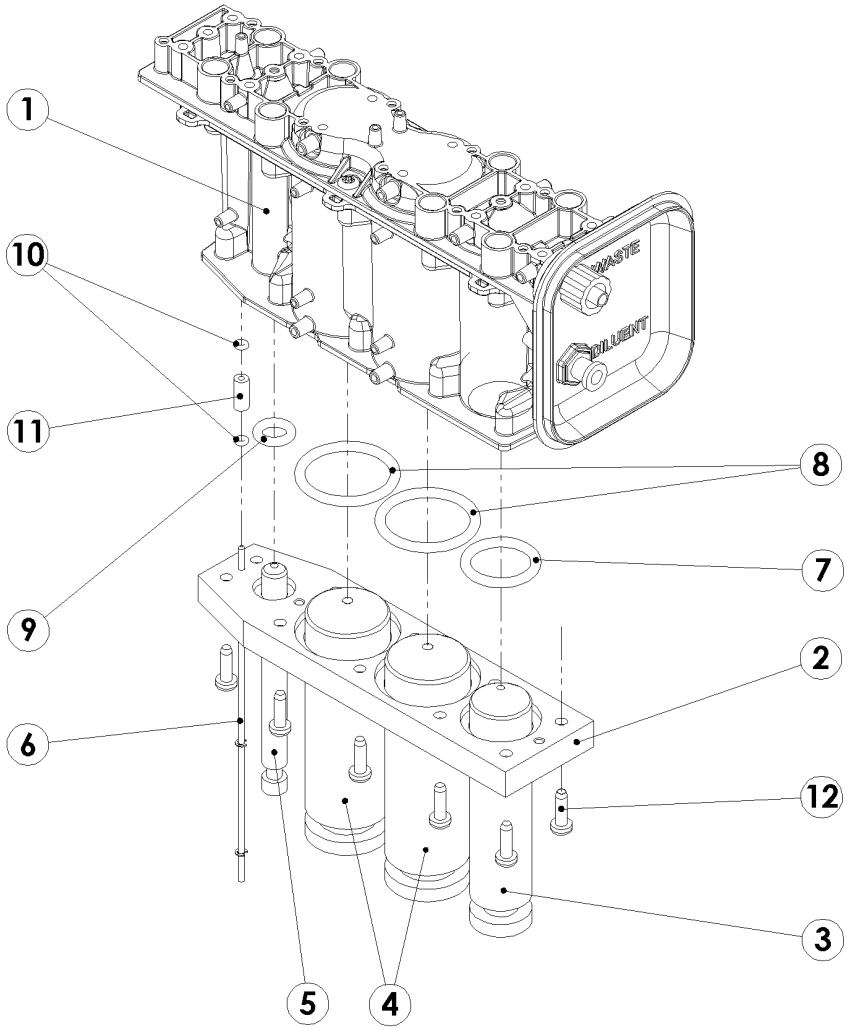
6.2.3 Syringe Module



Rep	Part Number	Designation
1	002-1002-03 05	M22 - Syringes body
2	010-2501-03 06	Seal plate
3	010-2501-03 02	Piston Ø 16
4	005-1001-03 03	Piston Ø 22
5	010-2501-03 01	Piston Ø 6.5
6	005-1001-03 09	Syringe Piston Ø 1.6
7	312-0501-1554 262	O-ring Ø15.54x2.62 Silicone 60SH
8	312-0501-2189 262	O-ring Ø21.89x2.62 Silicone 60SH
9	312-0501-630 240	O-ring Ø6.3x2.4 Silicone 60SH
10	312-0505-140 125	O-ring Ø1.4x1.25 Fluocarbon 80SH
11	010-2501-03 10	O-ring spacer
12	363-0201-030 100	Screw K 30 x 10

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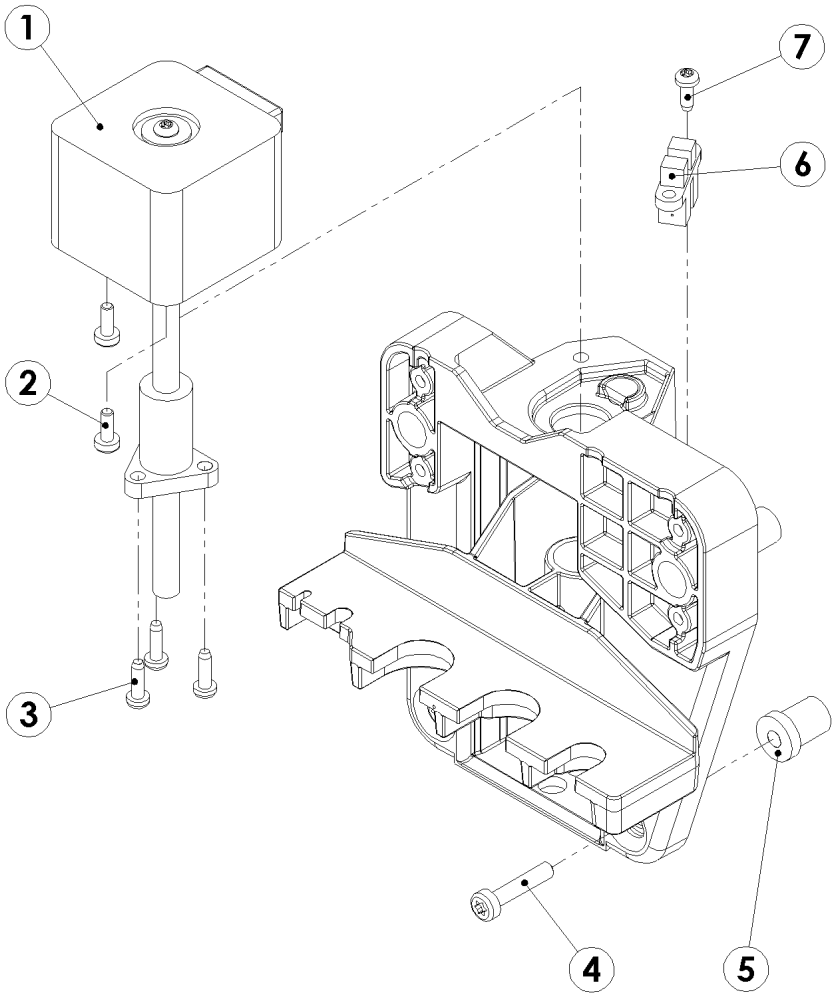
6. PARTS LISTE & BLOW UP VIEW



Rep	Part Number	Designation
1	005-1001-03 10	Syringes Motor
2	360-0101-030 080	Screw CZX M3 x 8
3	363-0201-030 100	Screw K 30 x 10
4	360-0101-040 200	Screw CZX M4 x 20
5	385-1001-04 30	Silent bloc M4
6	005-1002-82 880 3	M22 - Syringe Optical Sensor
7	363-0201-030 080	Screw K 30 x 8

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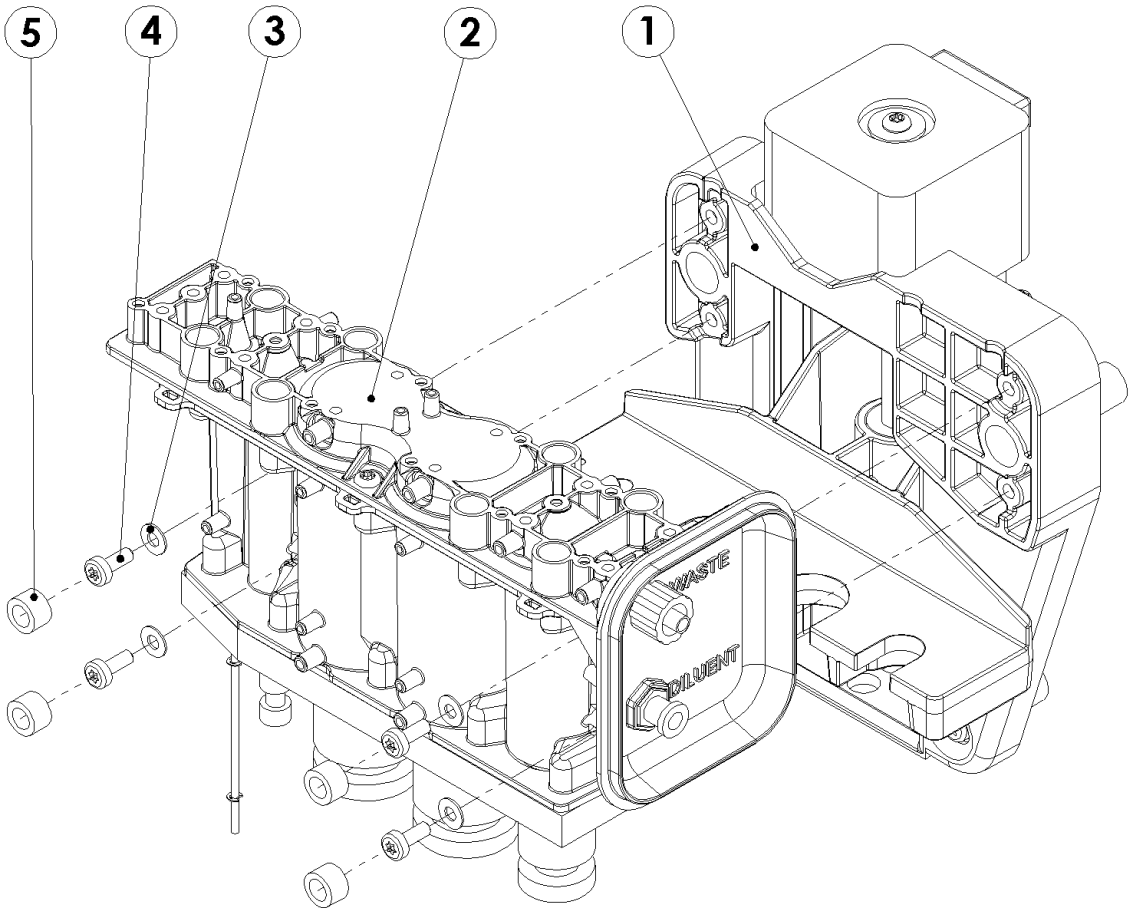

Rep	Part Number	Designation
1	005-1002-03 07	M22 - Syringes motor holder
2	002-1002-03 05	M22 - Syringes body
3	360-4002-030	Plain washer Ø3
4	360-0101-030 080	Screw CZX M3 x 8
5	005-1001-90 26	Tubing 26

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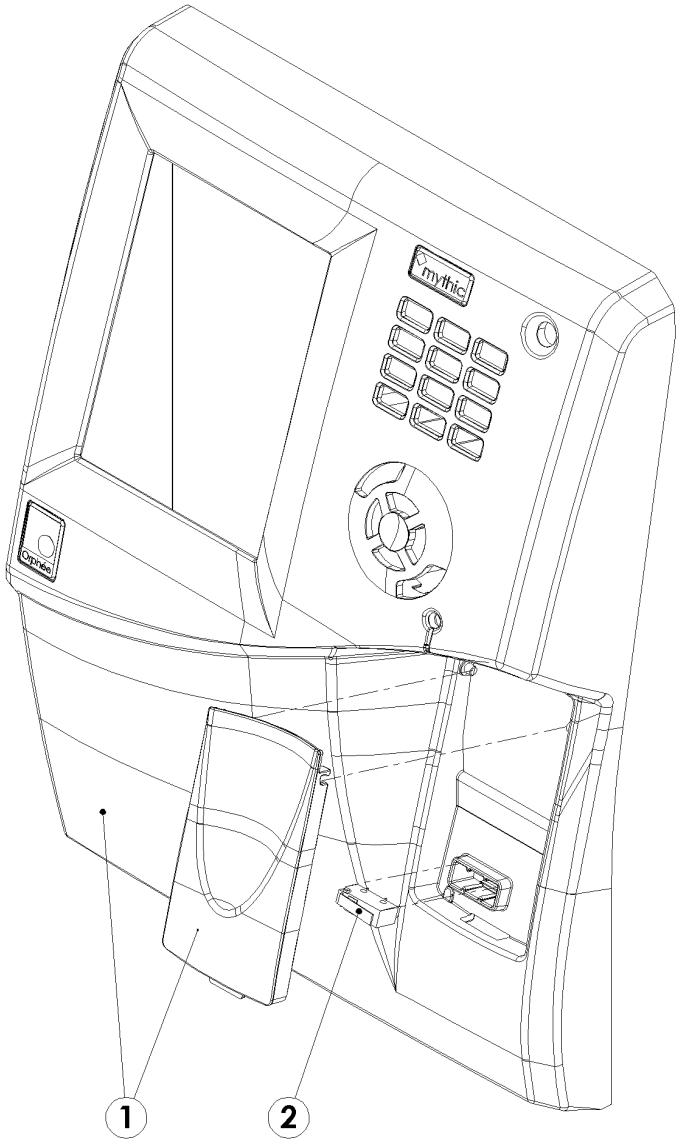
6.2.5 Front cover Module



Rep	Part Number	Designation
1	005-1002-04 02	M22 - Front cover
2	005-1001-84 06 170	Start key Switch

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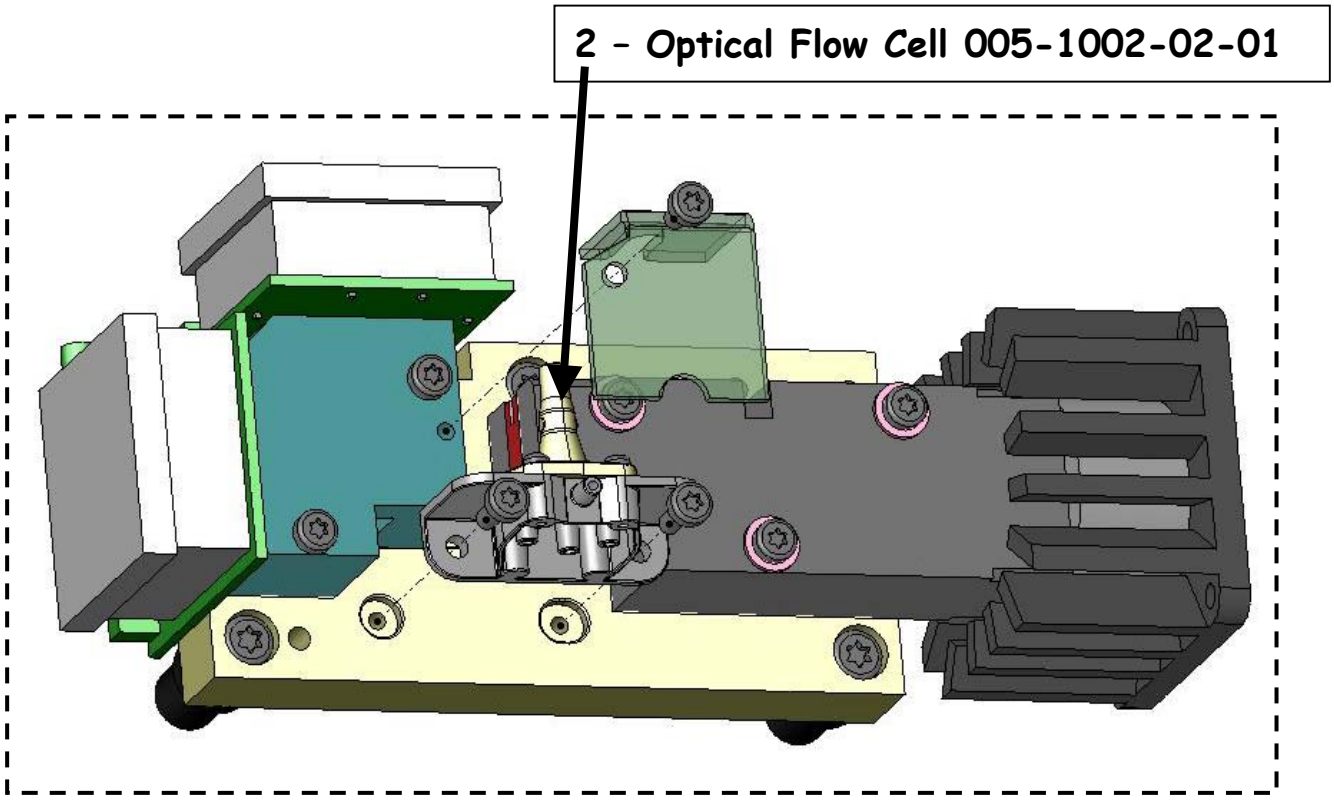
6.2.6 Optical bench



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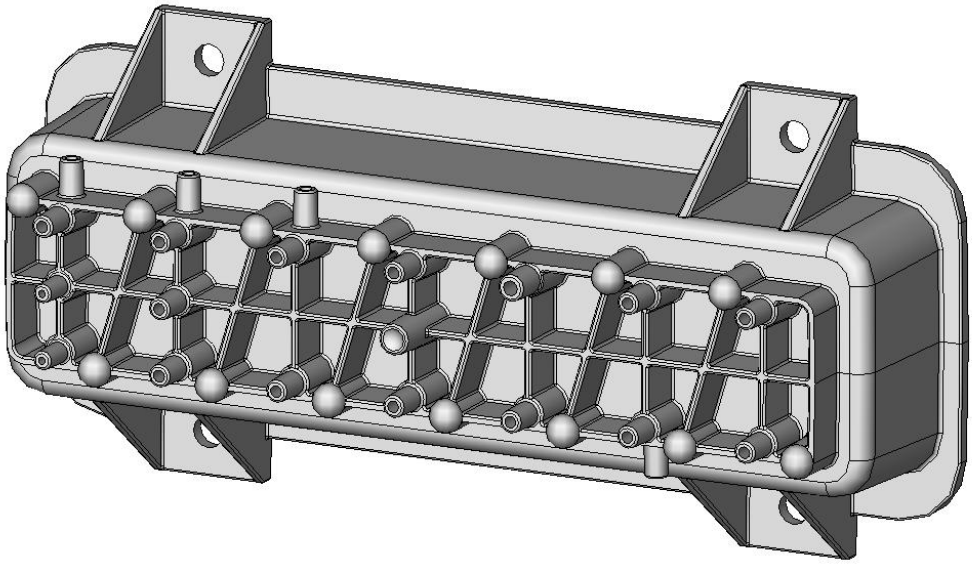
6.2.7 Optical manifold



Optical Manifold 005-1002-02-02

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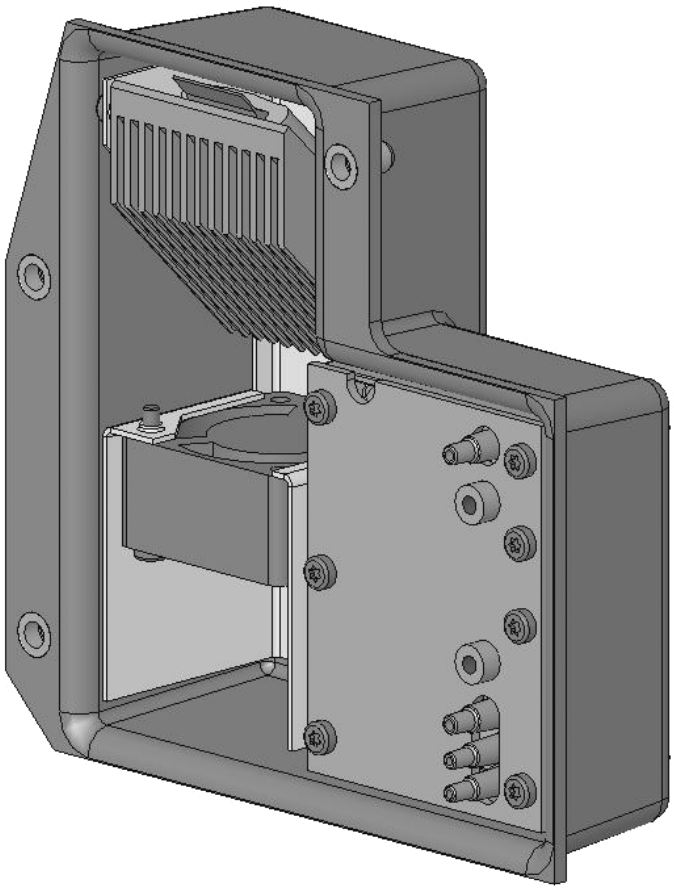
6.2.8 Heating module



Heating Module 005-1002-04-02

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7. SOFTWARE

7.1 INTRODUCTION

Please refer to the User's Manuel for explanation of the software operation.

7.2 SPECIFIC TECHNICIAN DISPLAY

The following section describe the software operation which are only accessible with the technician and super technician passwords.

7.2.1 Technician password

The unmodified technician password is : **8SUP**.

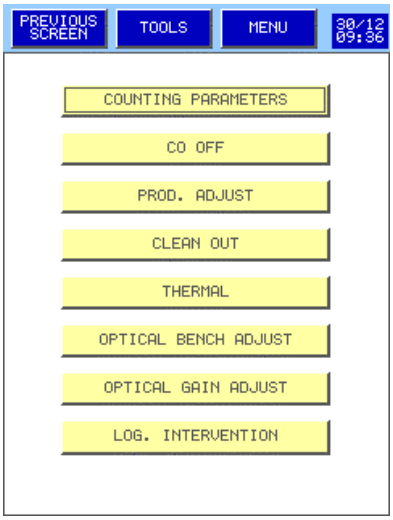
	- It is strictly forbidden to disclose the technician password to the final customer. **- In such case, Orphée guarantee will not be valid.**

	- In the technician log mode the most part of the control of the MYTHIC 22 are invalided, perform a specific Orphée training before repairing or maintaining.

7.2.2 Technician display

The technician display are accessible from **MAIN SCREEN** then **SERVICE** then **TECHNICIAN**.

7.2.2.1 Technician



- COUNTING PARAMETERS allows access to the adjustment of the counting parameters and lysis quantity. These adjustments are possible with the super technician code only.

- CO OFF allows to test the aperture current.

- For an access to the latex adjustment and HGB blanc adjustment press PROD. ADJUST

- CLEAN OUT see section **8.3**.

- LOG. INTERVENTION allows to fill up the log accessible from the **MAIN MENU**.

- THERMAL see section **7.2.2.4**

- OPTICAL BENCH ADJUST see section **7.2.2.5**

- OPTICAL GAIN ADJUST see section **7.2.2.6**

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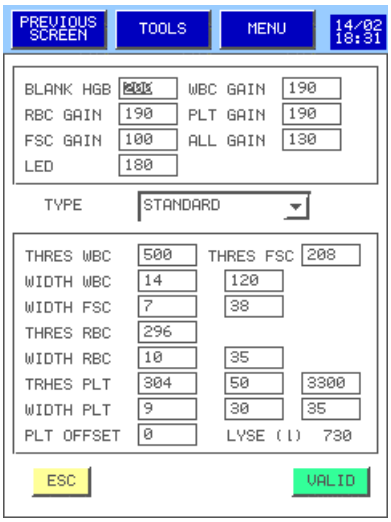
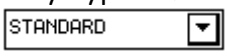
7.2.2.2 Counting parameters

	- The modification of one of these parameters must be done in compliance with Orphée after having performed a specific training. **- In this case of modification without authorization, Orphée guarantee will not be valid.**



- The access of this display is available with the super technician password only.

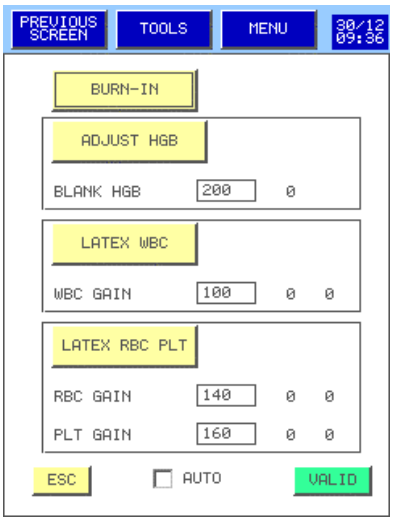
- The twenty types of blood can be changed and selected with the type window : 

- This display enables to modify the HGB, WBC, RBC and PLT gain located in the upper window and the counting pulse parameters in the lower window.

- If certain type of blood (animals) need another quantity of lyse, this quantity can be modified in the lowest window located on the right.

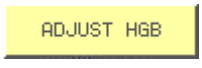
7.2.2.3 Prod. adjust

	- The modification of one of these parameters must be done in compliance with Orphée after having performed a specific training. **- In this case of modification without authorization, Orphée guarantee will not be valid.**

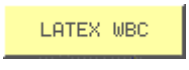


-

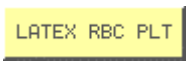
Not available : manufacturing parameters.

- 

allows to adjust the HGB blanc level.

- 

allows to adjust the WBC gain with the use of special latex particles.

- 

allows to adjust the RBC and PLT gain with the use of special latex particles.

-

: Tag means that the adjustments are automatically done.

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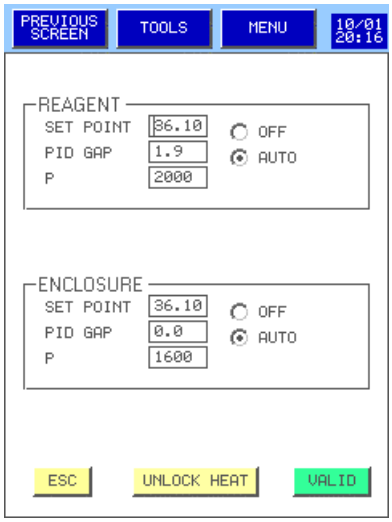
7.2.2.4 Thermal

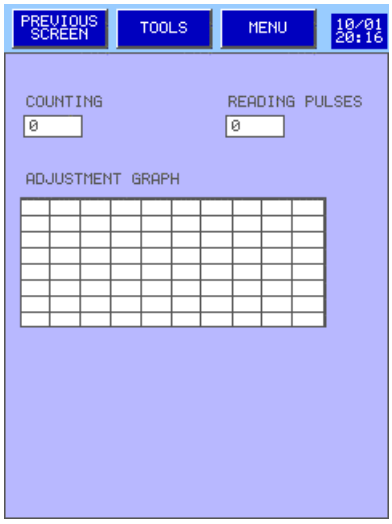
	- The modification of one of these parameters must be done in compliance with Orphée after having performed a specific training. **- In this case of modification without authorization, Orphée guarantee will not be valid.**



- Press UNLOCK HEAT to unlock the heating system, see the possible occurrence in section **4.5**.

7.2.2.5 Optical bench adjust

	- The use of this display can be done only after having performed a specific Orphée training.



- This display allows to adjust the optical beam with the use of special latex particles.

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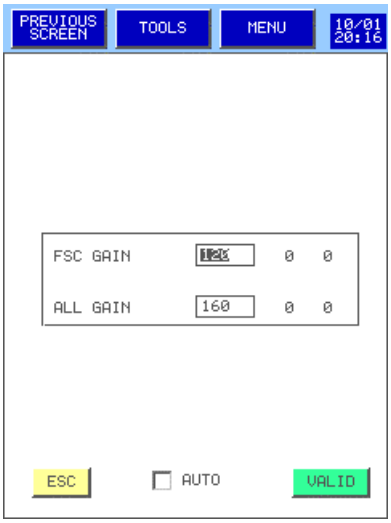
7.2.2.6 Optical gain adjust

	- The modification of one of these parameters must be done in compliance with Orphée after having performed a specific training. **- In this case of modification without authorization, Orphée guarantee will not be valid.**



- This display allows to adjust the FSC and ALL gain with the use of special latex particles.

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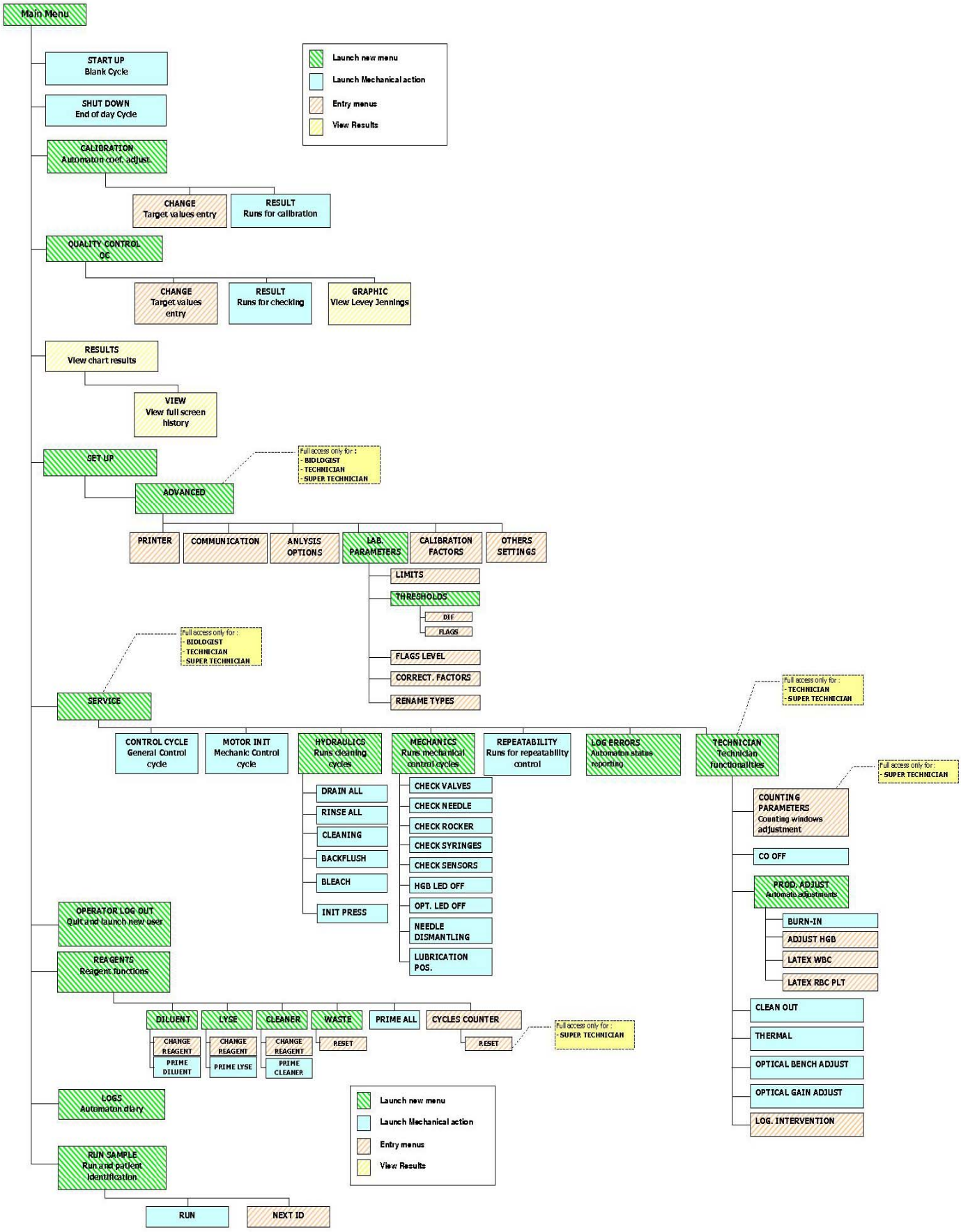
7.2 SOFTWARE ARBORESCENCE



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8. MAINTENANCE

The quality of the results and the reliability of the **MYTHIC 22** are directly linked to the strict respect of the maintenance hereafter described.

To perform the maintenance and the repair described in this section, it is mandatory to wear rubber gloves and wash hands with a disinfectant after completion of work.

8.1 MAINTENANCE TABLE

NOTA : This table is valid for an average number of 50 samples per day. For more, please increase proportionally the number of maintenances.

MAINTENANCE	DAILY		WEEKLY		MONTHLY		HALF A YEAR		ANNUALLY	
	User	Tech	User	Tech	User	Tech	User	Tech	User	Tech
Reagents level	X									
Start Up	X									
Automatic cleaning	X									
Concentrate cleaning			X							
Shut down	X									
Cover cleaning	X									
Piston greasing							X			X
Needle o-ring replacement										X
Syringes o-ring replacement										X
Motor screw greasing										X

- Reagents level control : see User's Manual.
- Start up : see User's Manual.
- Automatic Cleaning : see User's Manual.
- Concentrated cleaning : see User's Manual.
- Shut down : see User's Manual.
- Cover cleaning : see User's Manual.
- Piston greasing : see User's Manual.

- Needle o-ring replacement : see section 9.2.1
- Syringes o-ring replacement : see section 9.4.2
- Motor screw greasing : This operation is described during the ORPHEE training.

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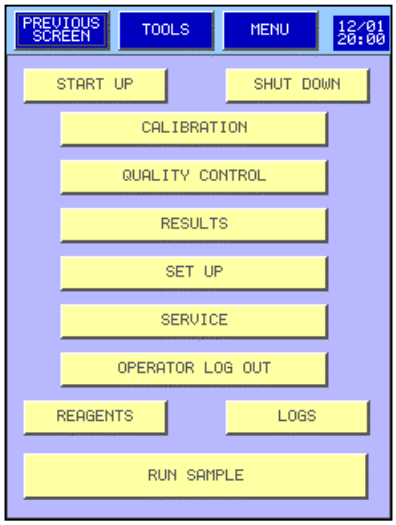
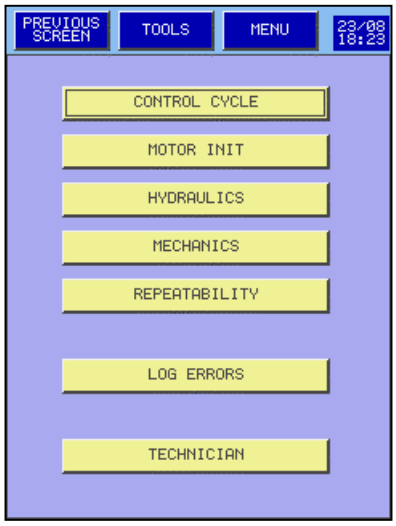
8.2 CONCENTRATED CLEANING

Such cleaning is necessary when **MYTHIC 22** is in permanent rejection for one measured parameter.
Prepare a Sodium Hypochlorite solution at 12° in chloride (diluted 4 times with distilled water if sodium hypochlorite is concentrated at 48° in chloride).

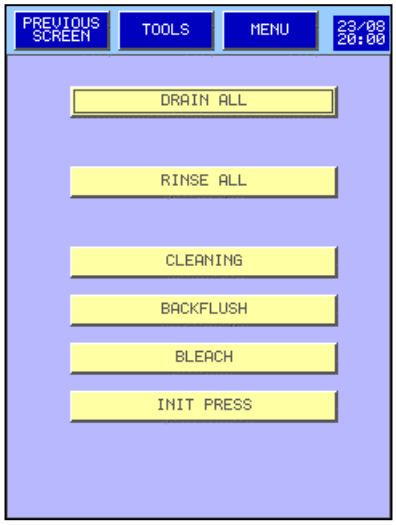
- Return to the main menu by pressing MENU.



- Then press SERVICE.



- Press HYDRAULICS.



- Press BLEACH to start the cycle (drain the counting chamber).

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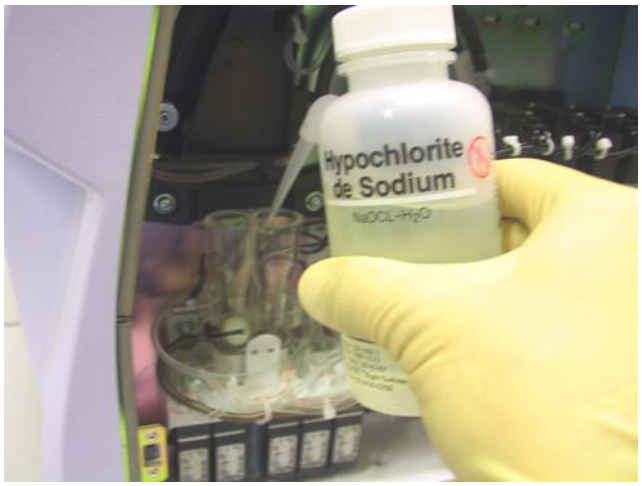
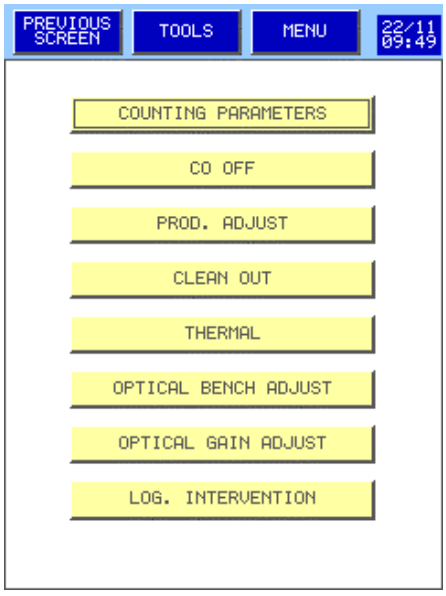


- Wait for the information window.
- Open the door on the right side (see section 1.1.3).
- Put **3** ml of sodium hypochlorite solution in each counting chamber.
- Press the button in the window located in the middle of the screen.
- **MYTHIC 22** performs a maintenance cycle of the apertures followed by a stand by mode during 2 min.
- After 2 min. **MYTHIC 22** rinses all of the elements. Operator can perform an analytic cycle.
-

	Wear rubber gloves and wash hands with a disinfectant after completion of work.

8.3 CLEAN OUT

This procedure has to be used when the **MYTHIC 22** must be transported for a long distance by car, train or plane. This procedure consists of cleaning the MYTHIC 22 with sodium hypochloride, then rinsing it with distilled water and drying it before the transportation.



The clean out is accessible from MAIN SCREEN then SERVICE then

Press CLEAN OUT

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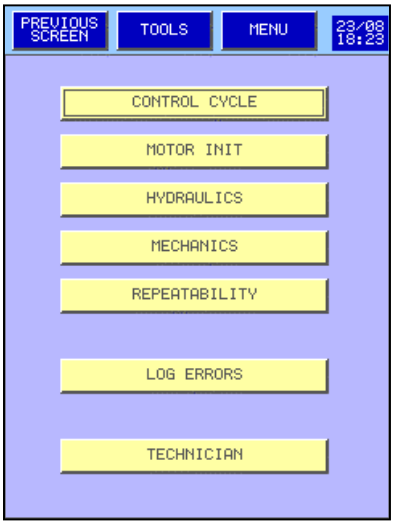
9. REPAIRING

	For all the following operations wear rubber gloves and wash hands with a disinfectant after completion of work. **Be careful with the edge of the metal sheets after having dismantled of the covers.**

9.1 EMERGENCY STOP

In case of mechanical or hydraulic problem, immediately press , the **MYTHIC 22** will make a emergency stop.

- After having identified the problem, it is necessary to perform a Control cycle.



- For an access to this cycle, press SERVICE from the MAIN MENU, then press CONTROL CYCLE

9.2 SAMPLING MODULE

9.2.1 Needle replacement

Perform needle replacement as is describe in the User's Manual.

9.2.2 Complete rocker module replacement

- Before to replace the complete syringe module drain all the tubing :
  - Remove the diluent, lysis and cleaner straw from their bottle
  - Perform a PRIME ALL (MAIN MENU / REAGENT / PRIME ALL)
- Switch off the MYTHIC and disconnect the power supply.
- Remove the Lysis and Cleaner bottle from their location

- Remove the upper cover (three screws) from the MYTHIC.

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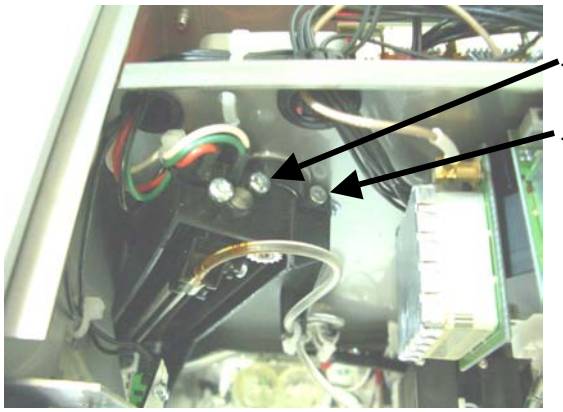
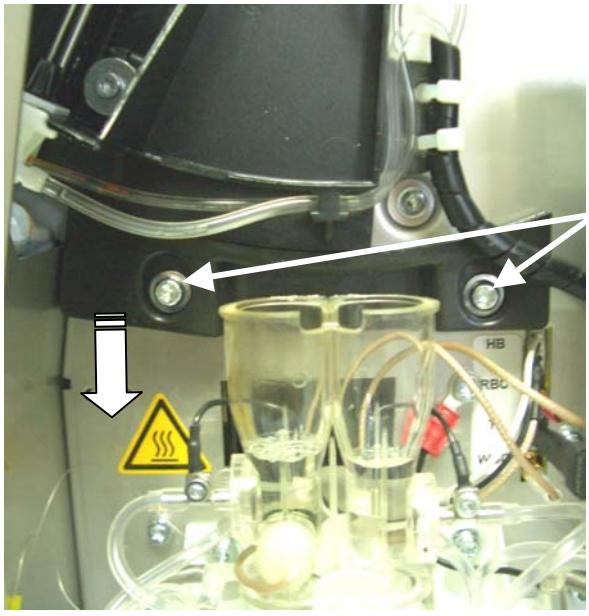


- Unscrew and remove the screw which maintain the IR barrier.

- Unscrew the rocker fixation screw but **DO NOT** remove it.



- Disconnect the three tubing and cut the ties.

- Unscrew the two guide screw but **DO NOT** remove it.

- Then slide down the guide

- Remove the complete rocker module.

REASSEMBLY PROCEDURE :
To reassemble the unit, carry out the various operations in the opposite direction.

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9.3 COUNTING BATHS MODULE

9.3.1 Baths dismantling

Perform baths dismantling as described in the User's Manual.

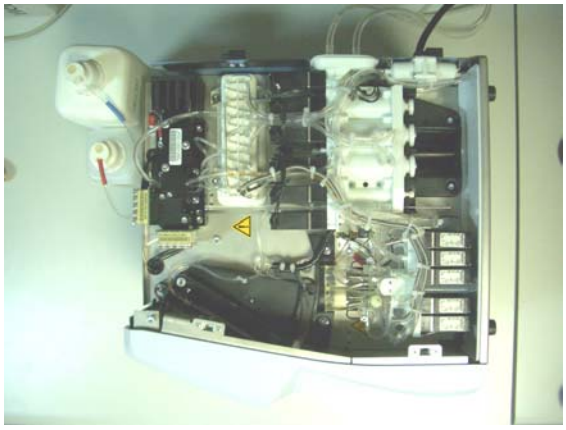
9.3.2 Baths o-ring replacement

Perform baths o-ring replacement as described in the User's Manual.

9.3.3 Aperture block replacement

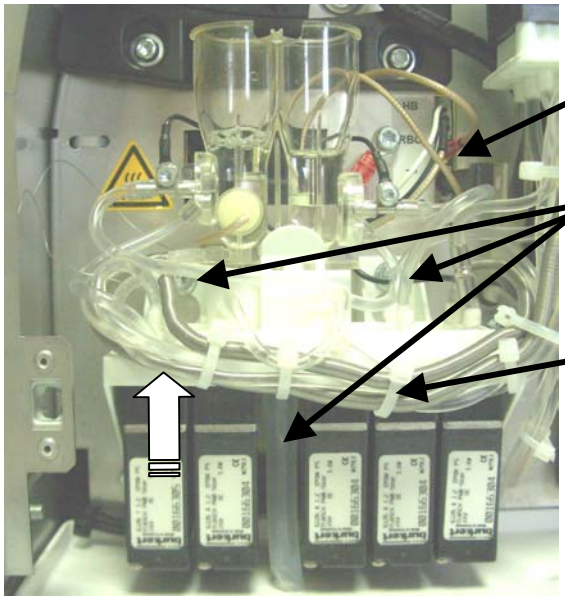
Perform aperture block replacement as described in the User's Manual.

9.3.4 Complete baths module replacement



- Before to replace the complete syringe module, drain all the tubing :
  - Remove the diluent, lysis and cleaner straw from their bottle
  - Perform a PRIME ALL (MAIN MENU / REAGENT / PRIME ALL)
- Switch off the MYTHIC and disconnect the power supply.
- Remove the Lysis and Cleaner bottle from their location

- Then put the MYTHIC on its left side.



Remove the baths connection (HGB, WBC coaxial, RBC coaxial and thermal captor).

Unscrew (but **WITHOUT** dismantle them) the three screws which maintain the baths module (the third screw is located behind the over flow tubing).

Cut the fixation ties of the tubing.

Disconnect the tubing from the manifold and the bath.

Slide up and remove the baths module.

NOTA : Take care about the tubing reconnection, if necessary, cut few millimeters (2 to 3mm) of tubing or exchange them.

REASSEMBLY PROCEDURE :

To reassemble the unit, carry out the various operations in the opposite direction.

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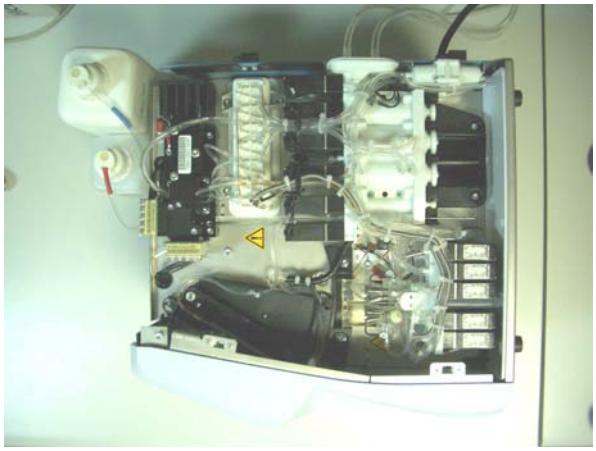
9.4 SYRINGE MODULE

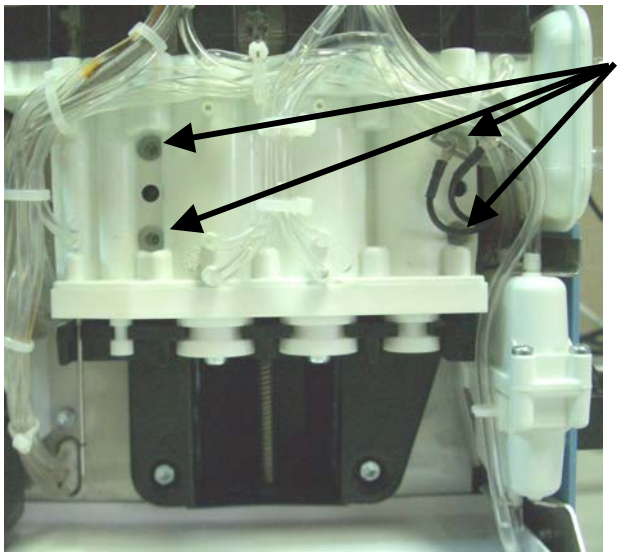
9.4.1 Piston greasing

Perform the piston greasing as described in the User's Manual.

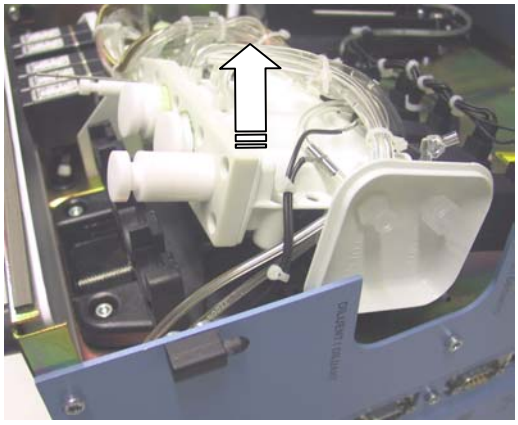
9.4.2 O-ring or piston replacement



- Before replacing the complete syringe module, drain all the tubing :
  - Remove the diluent, lysis and cleaner straw from their bottle
  - Perform a PRIME ALL (MAIN MENU / REAGENT / PRIME ALL)
- Put the syringe in lubrication position (MAIN MENU / SERVICE / MECHANICS / LUBRICATE POS.)
- Switch off the MYTHIC and disconnect the power supply.
- Remove the Lysis and Cleaner bottle from their location
- Then put the MYTHIC on its left side.



- Unscrew (but **WITHOUT** dismantle them) the four screws which maintain the syringe module.



- Lift the bloc, to exit the syringe pistons from the piston carriage.

- Exchange the piston, if needed.

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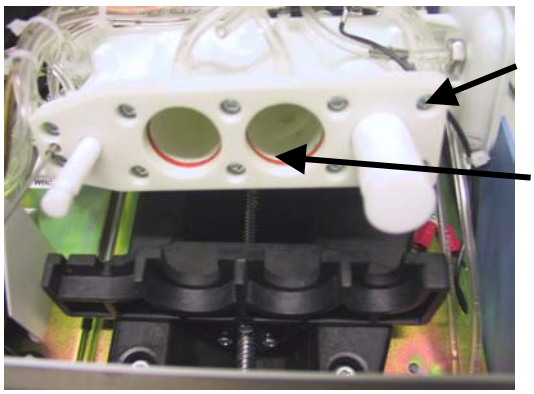


-.Unscrew and remove the eight screws which maintain the o-ring plate.

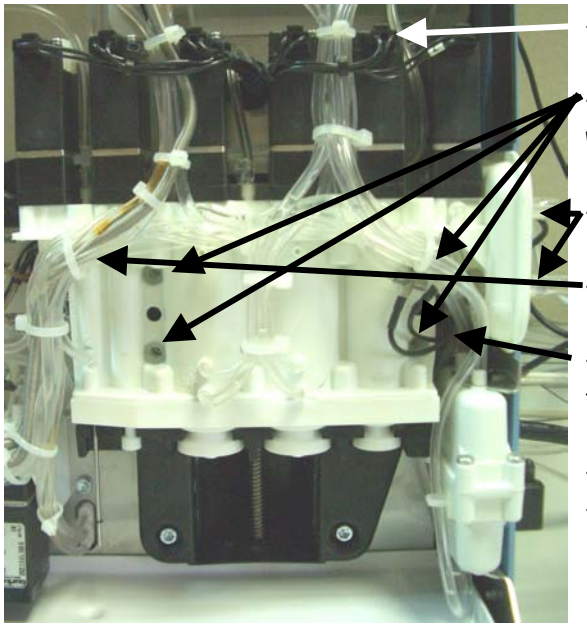
- Remove the o-ring plate and exchange the o-rings.

REASSEMBLY PROCEDURE :

To reassemble the unit, carry out the various operations in the opposite direction.

9.4.3 Complete syringe module replacement

Before exchanging the complete syringe module, put the MYTHIC on its left side as describe above (section 9.4.2).



- Disconnect all the valves connection.

- Unscrew (but **WITHOUT** dismantle them) the four screws which maintain the syringe module.

- Remove the waste and diluent tubing.

- Cut the fixation ties of the tubing.

-.Unscrew and remove the screws which maintain the ground fitting.

- Disconnect the tubing.
- Remove the complete syringe module.

NOTA : Take care about the tubing reconnection, if necessary, cut few millimeters (2 to 4mm) of tubing or exchange them.

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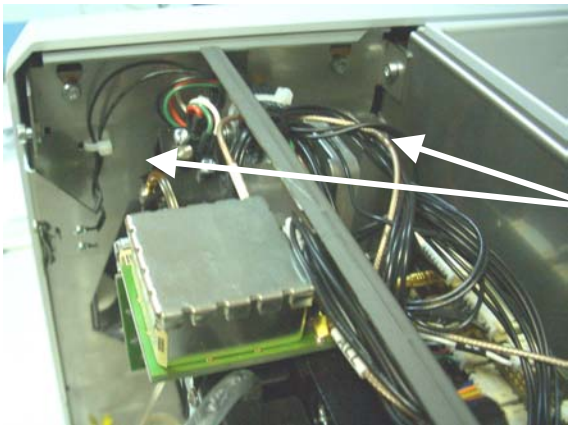
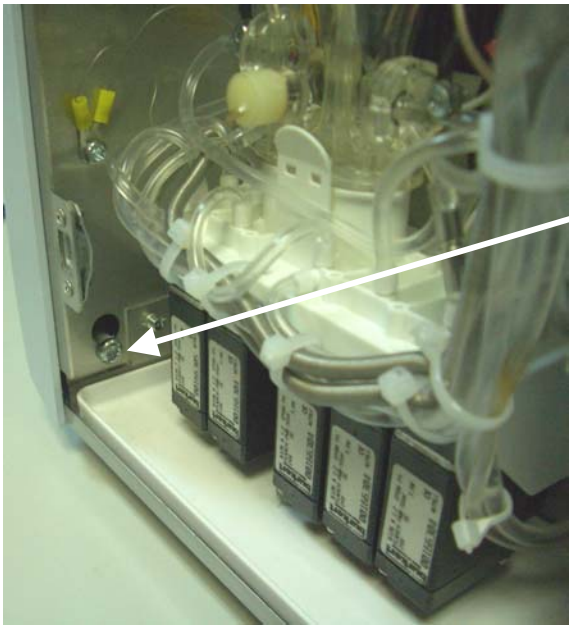
9.5 BOARDS REPLACEMENT

THE THREE BOARDS OF THE MYTHIC 22 ARE VERY SENSITIVE TO ELECTROSTATIC DISCHARGE, YOU HAVE TO USE A BODY EARTH CONNECTION TO HANDLE THE BOARDS FOR THEIR REPLACEMENT OR DISMANTLING.

9.5.1 GUI board replacement



Unscrew (but **WITHOUT** dismantle them) the two upper screws which maintain the front panel.



Unscrew (but **WITHOUT** dismantle it) the lower screw which maintain the front panel.

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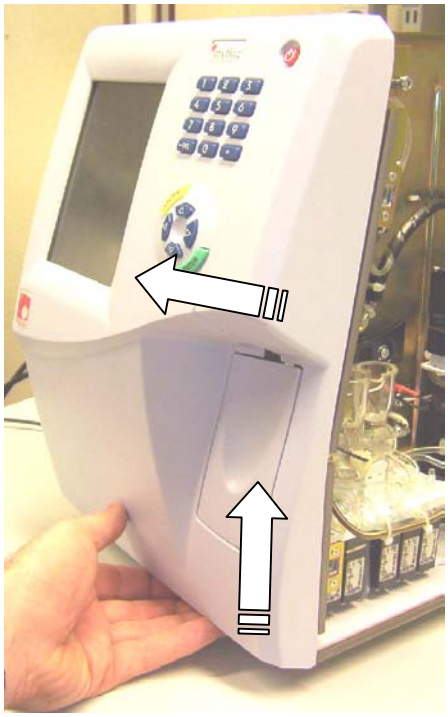
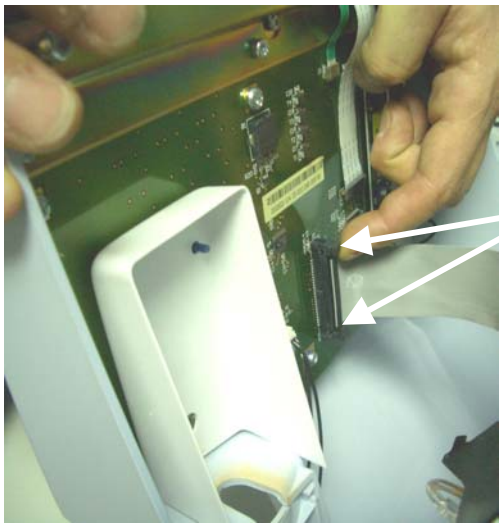
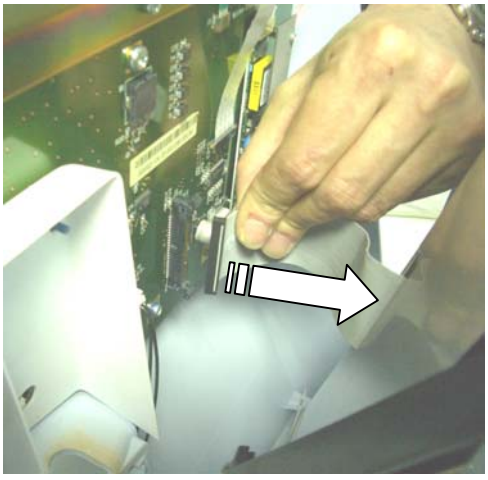


Lift the front panel and then pull it toward the front of the instrument.



VERY CAREFULLY and SLOWLY pull the upper side of the connector, and then pull the lower side to up the fixing system .
This part is **VERY** sensitive.
In case of brake, the complete GUI board have to be changed.



VERY SLOWLY pull the flat cable outside the connector.

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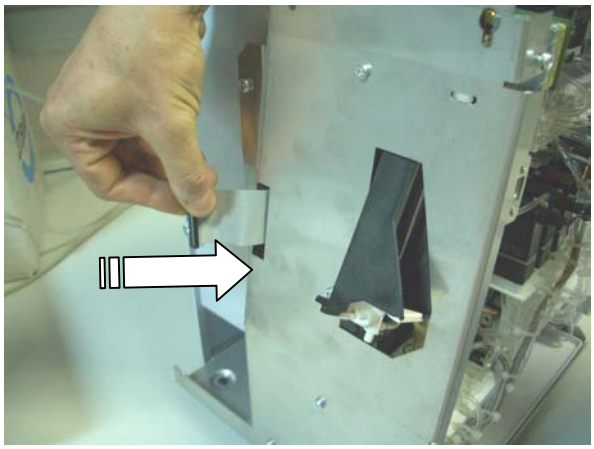
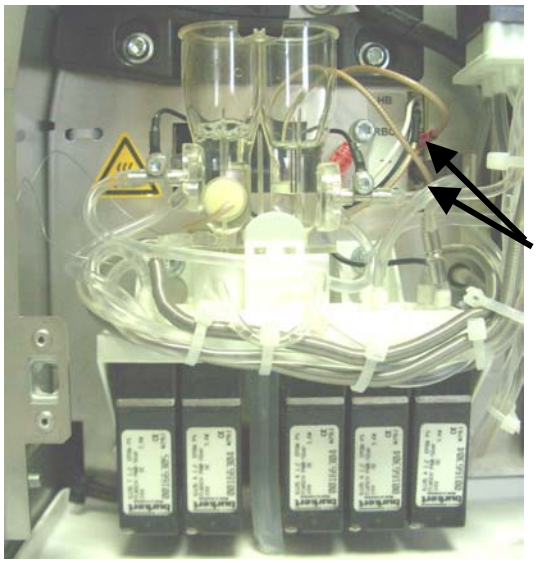
9.5.2 Main board replacement

NOTA : Before to dismantle the main board, dismantle the GUI board (see section **9.5.1**).



VERY SLOWLY push the flat cable inside the window.



Remove the baths connection (HGB, WBC coaxial, RBC coaxial and temperature sensor).

Remove this three screws at the back of the instrument.

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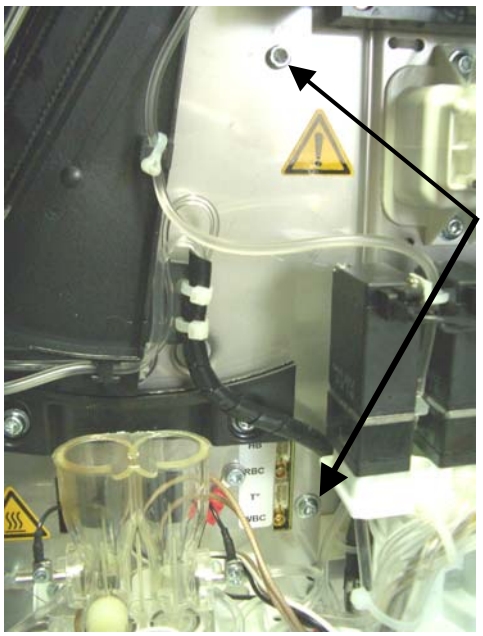
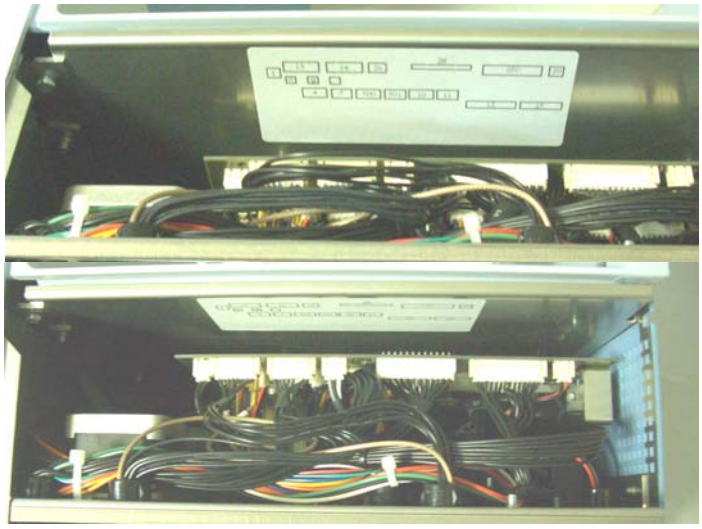
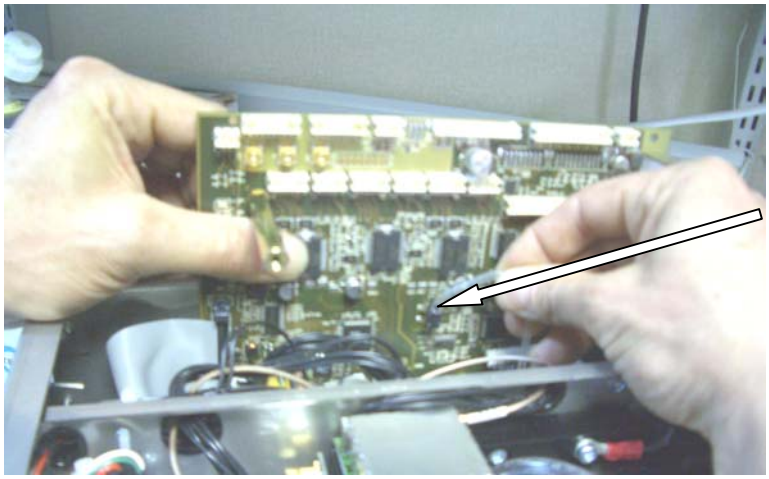


Remove the two screws located at the hydraulics side.



Lift slowly the board and remove the seventeen connectors located at the top of the board.

Each connectors is identified with a number to allows the reassembling following their position writing on the sticker.



Remove the vacuum tubing, then remove the board.

NOTA : After having performed the replacement of the board, don't forget to reconnect the vacuum tubing.

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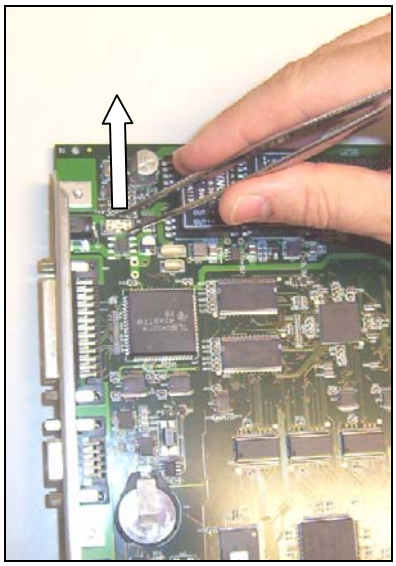
9.5.2.1 Fuse replacement

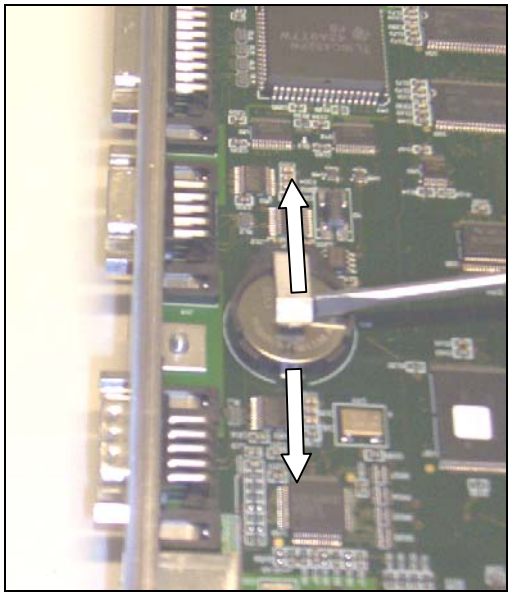


- Theses fuses protect the 24v circuit.

- Remove the fuse with a thin pliers and replace it by a new one.

	- Use a Littelfuse NANO² Slo-Blo fuse model 0454 004 to replace the old one. **- It's strictly forbidden to use an another type of fuse.**

9.5..2 Battery replacement



- This battery is only used to supply the real time clock.

- With a screwdriver lift the clips maintaining the battery.
- Slip down the battery to remove it and replace it by a new one.

	- Use a Maxell battery model CR2016 to replace the old one. **- It's strictly forbidden to use an another type of battery.**

	READ CAREFULLY THE FOLLOWING RECOMMENDATIONS.

Handling/storage

Never expose the battery to ultrasonic sound.

Exposing the battery to ultrasonic sound may cause short-circuiting because the inside material is broken into pieces, leading to distortion, leakage, overheating, explosion, or fire.

Never subject the battery to severe shock.

Dropping, throwing or stomping on the battery may cause distortion, leakage, overheating, explosion, or fire.

Never short-circuit the battery while installing into equipment.

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Please be careful when installing the battery not to short-circuit it with metal portions of the equipment.
Use the correct battery suitable for the equipment.
The battery may not be suitable for the specific equipment due to the using conditions or type of equipment. Please select the suitable battery according to the handling instructions of the equipment.
Never use or leave the battery in a hot place such as under the direct rays of the sun or in a car in hot weather.
If you do, this may cause distortion, leakage, overheating, explosion, or fire.
Never allow the battery to come in contact with water.
If it does, this may cause the battery to rust or lead to distortion, leakage, overheating, explosion, or fire.
Never store the battery in a hot and highly humid environment.
Doing so may cause the performance of the battery to deteriorate. In certain environments, this may lead to distortion, leakage, overheating, explosion, or fire.

Disposal
The battery may be regulated by national or local regulation. Please follow the instructions of proper regulation. As electric capacity is left in a discarded battery and it comes into contact with other metals, it could lead to distortion, leakage, overheating, or explosion, so make sure to cover the (+) and (-) terminals with friction tape or some other insulator before disposal.

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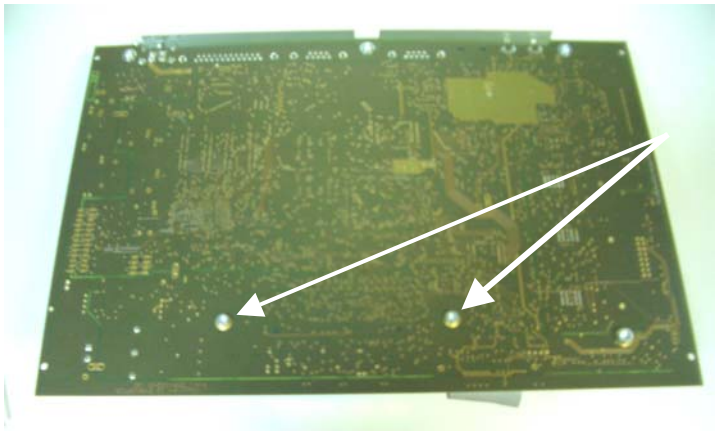
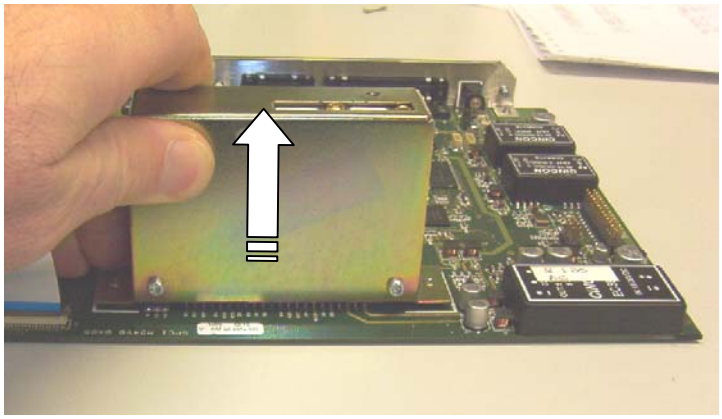
9.5.3. Preamplifier board replacement

NOTA : Before to dismantle the preamplifier board, dismantle the Main board (see section **9.5.2**).



Remove the two screws located on the copper side.



Remove the preamplifier box from the main board.

To reassemble the part, carry out the various operations in the opposite direction.

After the replacement of the preamplifier board it is mandatory to run a latex cycle to adjust the WBC and RBC/PLT gain (See section 7.2.2.3).

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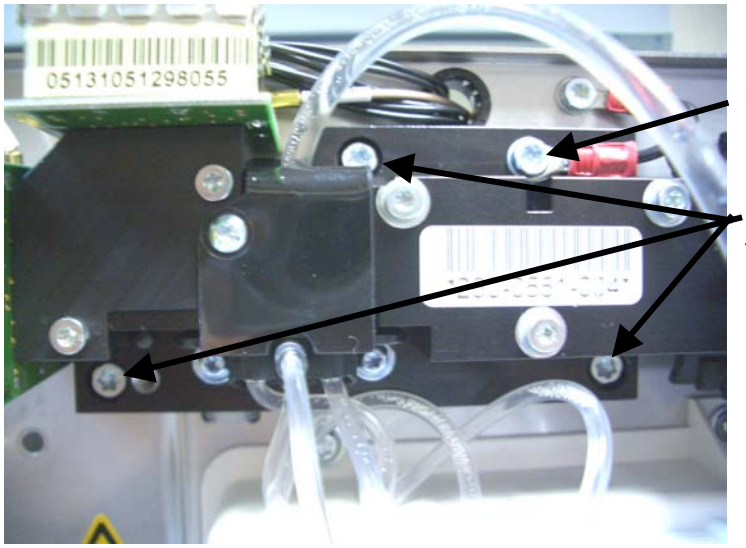
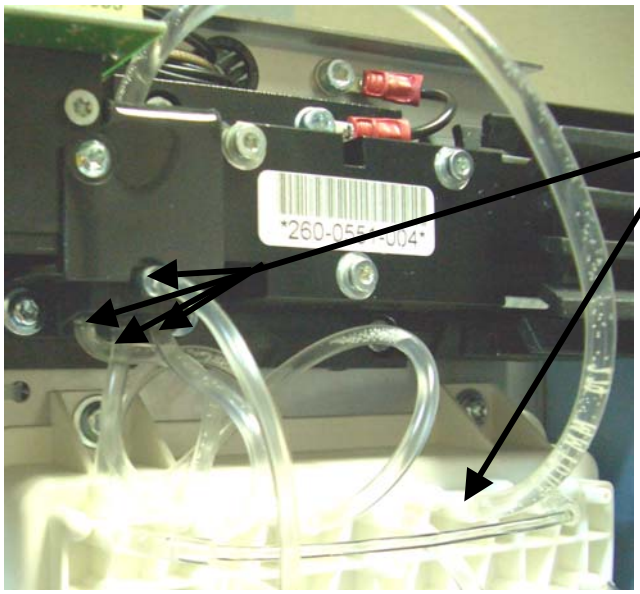
9.5 OPTICAL PARTS REPLACEMENT

9.6.1. Optical bench replacement



Unscrew and remove the ground screw.

Unscrew (but **WITHOUT** dismantle them) the three screws which maintain the optical bench.



Disconnect the four tubing located under the optical bench.

Disconnect the filth tubing from the optical manifold.

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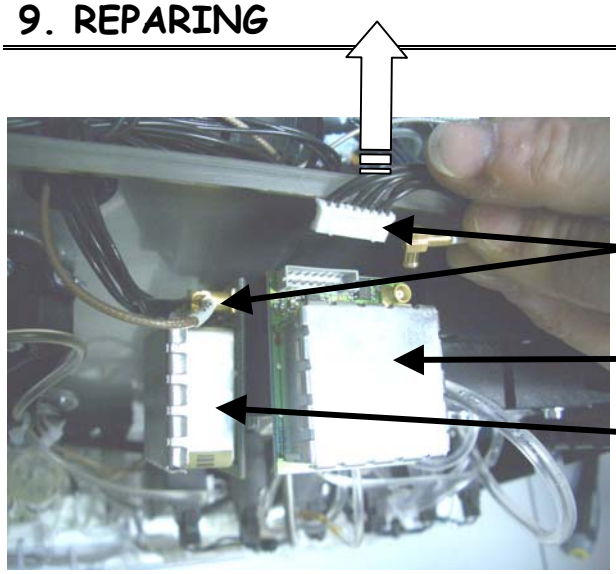


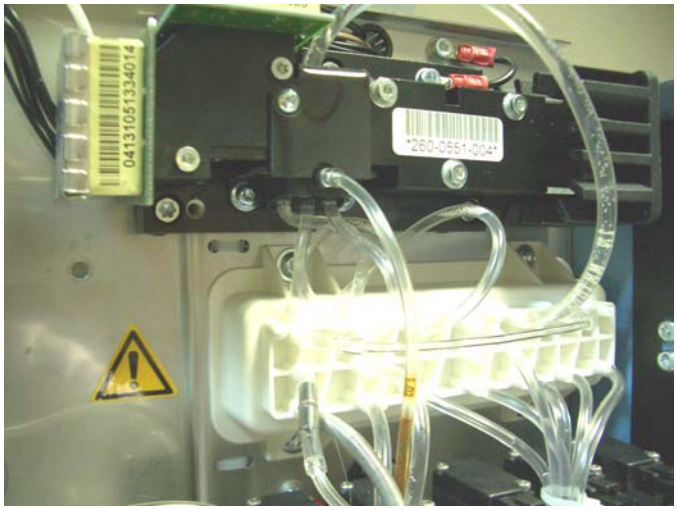
Remove the connectors from FSC and ALL preamplifier boards.

ALL preamplifier.

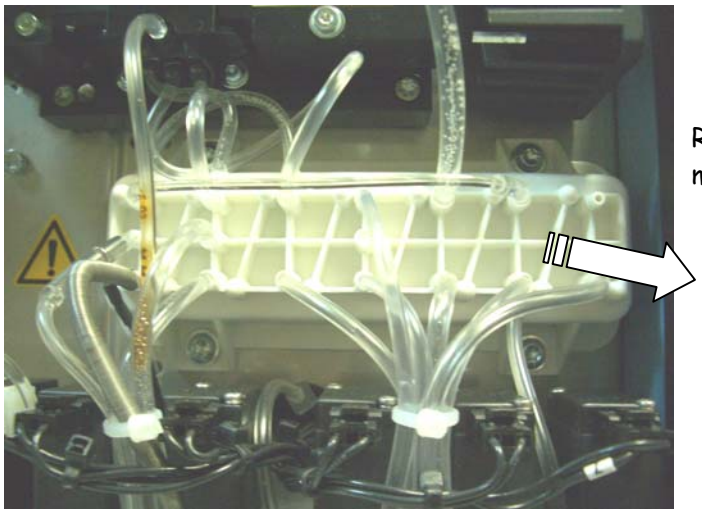
FSC preamplifier.

To reassemble the part, carry out the various operations in the opposite direction and proceed at the gain adjustment (see section 7.2.2).

9.6.2. Optical manifold replacement



Remove all the tubing connected to the optical bench.



Remove the four screws and remove slowly the optical manifold and then disconnect the valve connectors.

To reassemble the part, carry out the various operations in the opposite direction.

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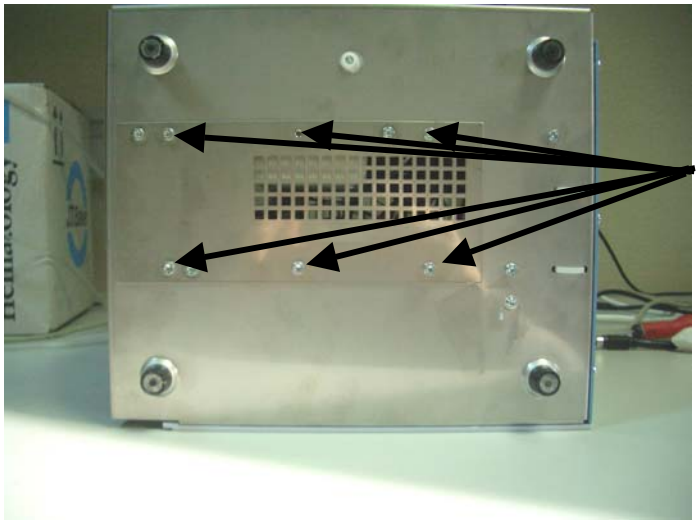
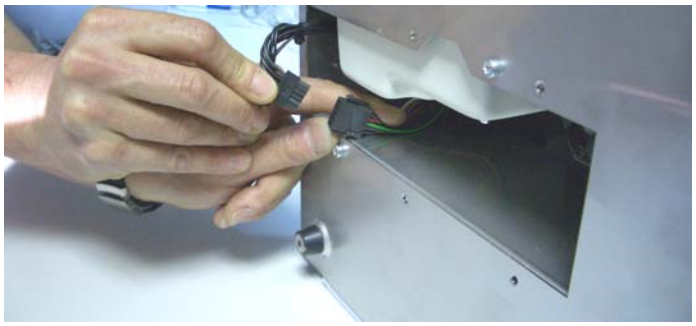
9.6.3. Heating module replacement

Before dismantling the heating module remove the reagent straws from all the reagent and run TWO "Prime all" to empty the MYTHIC.



Put the MYTHIC on the left side and remove the six screws from the reagent plate located under the machine (three screws stay on the basement).



Dismantle the connector.

The reagent module is fixed by five screws located in the fluidics part.

Remove the two screws located at the left of the counting module.

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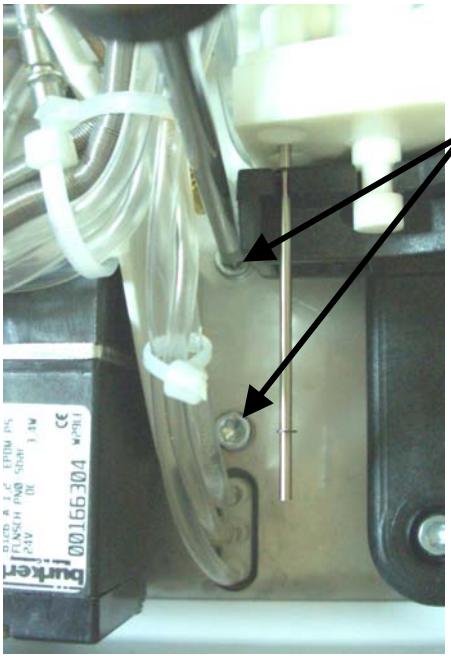
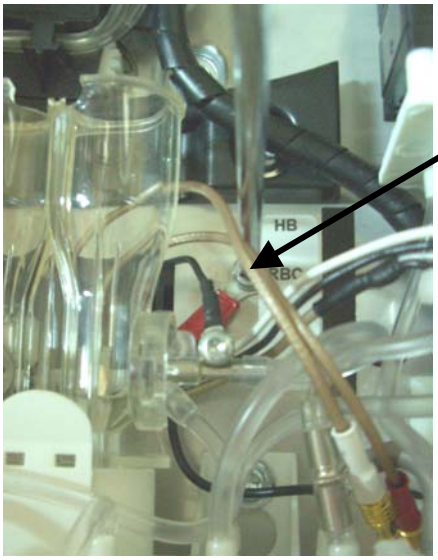
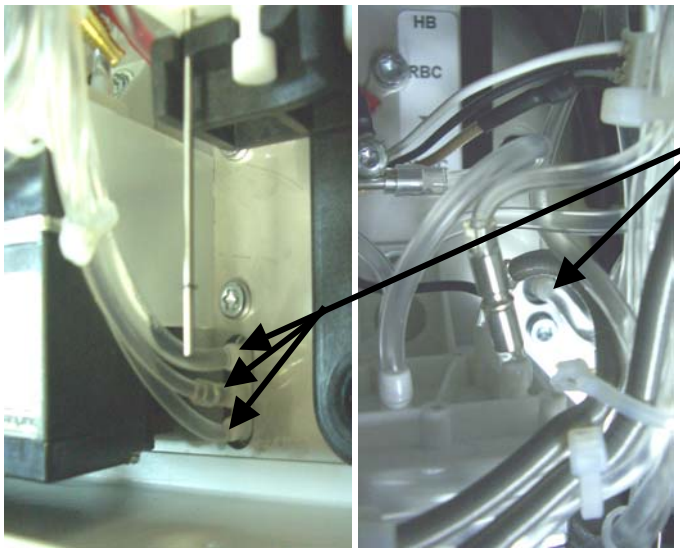


Remove the two screws located at the right of the counting module.



Remove the last screw located above the counting module and which maintain a ground cable.



Dismantle the four tubing located at the right of the counting module.

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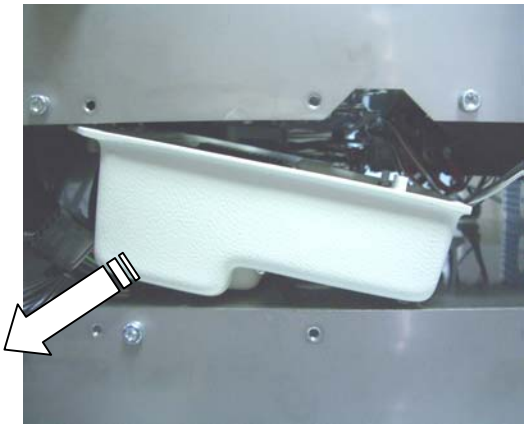

Remove the heating module from the MYTHIC 22.

To reassemble the part, carry out the various operations in the opposite direction.

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10. TROUBLESHOOTING

In any case, if a problem is not solved, call Orphée's.

10.1 ANALYTICAL PROBLEMS

PARAMETERS	PROBLEMS	CONDITIONS	SOLUTIONS
WBC	No results	No HGB	Check the lysis level. Check the right lysis tubing connection to the WBC bath. Check the valve Nb 9.
		HGB OK	Check the bath wires. Perform a Cleaning Cycle and then a Bleach cycle if unsuccessful. Change the aperture block if unsuccessful.
	Bad stability		Perform a Back flush and a Cleaning Cycle and then a Bleach cycle if unsuccessful. Check the level bubble flow in the WBC bath during the run cycle. Check the reagent and enclosure temperature.
5 DIFF	No result	No HGB & WBC	Check the lysis level. Check the right lysis tubing connection to the WBC bath. Check the valve Nb 9.
		HGB & WBC OK	Perform a Back flush Cycle and then a Bleach cycle if unsuccessful. Check the reagent and enclosure temperature. Check the preampli connection wires.
RBC	No results	No HCT & PLT	Check the bath wires Perform a Cleaning Cycle and then a Bleach cycle if unsuccessful
	Bad stability	HCT & PLT too	Perform a Back flush and a Cleaning Cycle and then a Bleach cycle if unsuccessful Check the level bubble flow in the RBC bath during the run cycle Check the level bubble flow in the WBC bath during the first dilution
HGB	No results		Check the led light on
	Bad stability		Check if no bubble in the lysis tubing. Check the reagent and enclosure temperature. Check the level bubble flow in the WBC bath during the run cycle.

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10.2 OTHER PROBLEMS

ORIGIN	PROBLEMS	SOLUTIONS
MYTHIC	Diluent leaks around the needle during the run cycle	Check the rinsing needle block (presence of clots) and clean it if necessary see section **9.3.2**
	No starting	Check the power supply connection wires
	All results bad	Check the level diluent and if the tubing is pinched. Check if the diluent is at the same level than the analyzer.
	No display	Check the flat cable.
	Machine switch off after few second following the switch on.	See section **5.4.2**
Printer	No printing	Check the paper. Check the electrical connection.
	Bad printing	Check the black ribbon.

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10.3 TROUBLESHOOTING MESSAGE

This section allows to know what to do when a troubleshooting message appears on the screen.

MESSAGE	ACTION
ANALYSIS MODE UNKNOWN	Enter an analysis mode
BACKUP : BAD FOLDER DUPLICATION	Re-start the Mythic.
BACKUP : CALIBRATION HISTORY IS FULL	Delete the calibration results.
BACKUP : ERROR HISTORY IS FULL	Delete the error history.
BACKUP : FOLDER NOT FOUND	Re-start the Mythic
BACKUP : MEMORY IS ALMOST FULL. PLEASE DELETE RESULTS	Delete results
BACKUP : NO MEMORY AVAILABLE FOR STORAGE	Delete the stored results.
BACKUP : QC HISTORY IS FULL	Delete the Q.C. results of the ongoing lot.
BACKUP : REPEATABILITY HISTORY IS FULL	Delete the repeatability results.
BACKUP: SYSTEM ERROR	Re-start the Mythic.
CONTROL CYCLE NOT DONE	Perform a control cycle.
CLEANER ALMOST EMPTY	Replace the bottle and perform a prime Cleaner
CONTROL CYCLE NOT DONE	Perform a control cycle.
CYCLE : BUSY	Wait before performing a cycle.
CYCLE : CMD VALVE FAILED	Change the valve
CYCLE : CYC_AUTO_STOPPED	Emergency stop, please perform a control cycle.
CYCLE : EMERGENCY STOP	Perform a control cycle.
CYCLE : INIT NOT DONE	Perform an initialization or a control cycle.
CYCLE STOPPED BY USER	Emergency stop, please perform a control cycle.
CYCLE: DOOR OPENED	Closed the door and perform control cycle in case of emergency stop.
CYCLE : VALVE XX FAILED	Change the valve
CYCLE : PRESSURE DEFAULT	Re-start the Mythic.
DILUENT ALMOST EMPTY	Replace the container and perform a prime Diluent
HARDWARE: A.L.L OPTICAL ID FAILED.	Check the hardware connection on ALL Board
HARDWARE: F.S.C BOARD ID FAILED.	Check the hardware connection on FSC Board
HARDWARE: FAN FAILED.	Check if your temperature fan is running
HARDWARE: HEAT ENCLOSURE FAILURE.	See section 4.5.2
HARDWARE: HEAT ENCLOSURE STOPPED.	Check your enclosure sensor
HARDWARE: HEAT REAGENT FAILURE.	See section 4.5.2
HARDWARE: HEAT REAGENT STOPPED.	Check k your reagent sensor
HARDWARE: SYSTEM ERROR	Re-start the Mythic.
ID AND/OR PID MANDATORY (CHECK SETUP). SID ALWAYS MANDATORY	Enter an ID and/or PID and SID
INIT PRINTER	Switch on the printer or invalidate the printings.
INTERN : COUNT ERROR	Re-start the Mythic.
INTERN: MEMORY CORRUPTED	Re-start the Mythic.
INTERN: NO MEMORY AVAILABLE	Re-start the Mythic.
INTERN: RESULT AREA IS LOCKED	Wait before performing a cycle. If persisting, re-start the Mythic.
LYSE ALMOST EMPTY	Replace the bottle and perform a prime Lysis

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MESSAGE	ACTION
MECA : HOME_NOT_FOUND	Perform an initialization or a control cycle.
MECA : MOTOR GAP	Nothing.
MECA : NEEDLE NOT IN TOP POSITION	Perform a control cycle.
MECA: MOTOR BUSY	Re-start the Mythic.
PRINTER: NO PAPER	Add some paper.
NO PRINTER RESPONSE	Switch on the printer or invalidate the printings.
NO PRINTER SELECTED	Switch on the printer or invalidate the printings.
OUT OF RANGE	Modify the value
PRINTER ERROR	Switch on the printer or invalidate the printings.
PRINTER IS BUSY	Switch on the printer or invalidate the printings.
PRINTER IS OFF	Switch on the printer or invalidate the printings.
RINSE NOT DONE	Perform a rinse cycle.
RS232 : BUFFER FULL	Re-start the Mythic.
RS232: ACK ERROR	Re-start the Mythic.
RS232: INTERNAL ERROR	Re-start the Mythic.
RS232: SYNCHRO ERROR	Re-start the Mythic.
RS232: TIME OUT	Re-start the Mythic.
RUNNING AUTO CLEANING ,	Press OK.
START UP CYCLE FAILED	Perform a new start up cycle
START UP CYCLE NOT DONE	Perform a start up cycle.
SVM: BAD VERSION.	Update the SVM software
SVM: COM. TIME OUT	Re-start the SVM.
SVM: ILLEGAL SERIAL NUMBER.	This MYTHIC can not connected to the SVM.
SVM: UNMATCH	Re-enter the file or confirm it (manual connection on the SVM).
SVM: WG	Westgard alarm.
SVM: XB	XB alarm.
SYSTEM : EEPROM COM ERROR	Re-start the Mythic.
SYSTEM : INTERNAL TIME OUT	Re-start the Mythic.
SYSTEM: FATAL ERROR	Re-start the Mythic.
SYSTEM ERROR ,	Re-start the Mythic.
SYSTEM: UNKNOWN ERROR	
THE CLEANER USED IS OUT OF DATE	Replace the bottle and perform a prime Cleaner
THE DILUENT USED IS OUT OF DATE	Replace the container and perform a prime Diluent
THE LYSE USED IS OUT OF DATE	Replace the bottle and perform a prime Lysis
WASTE ALMOST FULL	Replace the waste container

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